

# MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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## Manufacturers' Record.

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BALTIMORE, MAY 21, 1897.

### In the South's Interest.

Since the day when he entered office, the new Secretary of Agriculture, Mr. Wilson, has evinced a purpose to place his department in a position to be of greater benefit than ever before to the farmers of the country. He asserts, and he brings forth convincing facts as his auxiliaries, that the American husbandman is capable of raising many products which are now brought in part or wholly from abroad, and he proposes to make the way as easy as possible for this to be done. He sees no reason why the United States should import one million dozen eggs, \$10,000,000 worth of goat skins, \$658,320 worth of beans and peas, \$556,644 worth of cabbage, \$127,595 worth of potatoes, \$2,773,535 worth of hay, \$600,000 worth of hops, and nearly \$2,200,000 worth of rice; and, with the belief that it is absurd to pay to other nations \$100,000,000 for sugar each year, he has not only distributed sugar-beet seed by the wholesale in the hope of encouraging the cultivation of that crop, but he is now undertaking to demonstrate the practical advantages in beet-sugar manufacture to those who will be able to invest capital in the undertaking.

A glance at the list of products mentioned by the Secretary reveals the fact that the South has a deep interest in the success of the plans of the Secretary, and this should be increased by his statement in this week's Manufacturers' Record, that he is anxious and willing to second the intimation from the President that the Department of Agriculture give the South a large share of official attention. With that object in view, Mr. Wilson is preparing to make an extended trip through the South in order to become acquainted with its resources and its people, and in the meantime he practically invites men who are in a position to acquaint him with the needs of the South from the standpoint of the department, to suggest to him measures for promoting agricultural prosperity.

Thus is presented a particular chance for the South to get into close touch with an official who is desirous of bringing

ing his practical knowledge and official influence to bear upon the study of questions of importance to the agriculturist, and it remains for competent men in the South to offer him every facility at their command to acquire the suggestions of their special experience.

### Southern Protective Policy.

Representative McLaurin, of South Carolina, has explained in an interview the mental process which resulted in his famous speech on the tariff. As a member of the ways and means committee of the House, he tells the Washington correspondent of the Charleston News and Courier that he noted for a time that, amid the pleas of individuals and delegations for national recognition, was no mention of the great industries of the South. Finally a rift in the monotony appeared when the interests of long-staple cotton were advocated. This made little impression, but presently letters began to come from different sections of the South, calling attention to the rice schedule; cottonseed-oil producers objected to the placing of tallow on the free list, as tending to cheapen the price of cottonseed, and cotton-growers asked if it would not be fair to demand a duty on cotton, inasmuch as there was a heavy duty on cotton cloth. These manifestations wrought Mr. McLaurin into a state which he thus describes:

The injustice of sitting idly by and permitting the North and East to obtain all the advantages of such legislation, and at the same time realize that my own section and people were being plundered through its operation, forced me to make a protest and take the position I have. As I continued the preparation of that speech I became more and more impressed that the interests of the South had been neglected, and more firmly determined to make a demand for fair and equitable division of benefits and responsibilities. I am not a protectionist, and rejected that statement many times in the course of my speech, but if that doctrine was to obtain in this country I simply demanded as a matter of right and justice that the South should not be the victim.

It is no wonder that, with such an impulse, the speech of Mr. McLaurin should have caused such wide comment; for, in spite of protestations that personal adherence to the policy of protection was not involved, the speech was regarded, and will be regarded, rightly, too, as punctuating the period when men felt freer to recognize, perhaps unconsciously, that a policy that could benefit their section might be supported without the sacrifice of principle by merely having the boldness to disregard figments of party theory in dealing with practical economics.

As the tariff bill has passed from the House to the Senate, this sentiment has developed, and has been emphasized by the announcement of Senator McEnery, of Louisiana, that he is willing to vote for reasonable protection to the industries and labor of every section of the country. Senator McEnery's position is one of conviction; that of Representative McLaurin, one of expediency. But both are the prophets of the same doctrine; the arguments of both are

parallel, and their preachers will contribute to a common end, the placing of the South in a position to develop its resources fully and to avail itself of the opportunities presented in the attention of the business element of the North directed to its advantages by means of such efforts as Mr. McLaurin's second speech.

### The World's Commerce.

Trade bodies, individual commercial firms and manufacturers are appreciating more and more the value of the publication of the Department of State known as the "Commercial Relations of the United States with Foreign Countries," being the annual report of the consular officers of the country on the industries and commerce of their respective districts. The report for 1895 and 1896, just published, is enhanced in utility and suggestiveness by the addition to the regular features of special reports upon the conditions of trade in different countries which seem to offer favorable openings for our products or to present disadvantages or hindrances thereto.

To be specially noted is the succinct summary of the reports under the title of "Review of the World's Commerce," made by Frederic Emory, chief of the bureau of statistics of the department. He regards the steady increase of exports of manufactured goods as the significant fact in the foreign trade of the United States. As illustrations he refers to iron and steel, machinery, leather, cotton goods, boots, shoes, hardware, cutlery, bicycles, sewing machines, paper products, wood electrical supplies, etc., in which the United States are successfully meeting the competition of the industrial countries, even in their own home markets.

One of the most notable contributions to this gratifying showing is the recent performance of Southern iron in England; and it is not surprising that the British Board of Trade feels the necessity for greater attention in the United Kingdom to manufacturing for export, and is convinced that past undoubted pre-eminence of England may not be maintained without strenuous effort and careful and energetic improvements in methods.

### Unworthy of Criticism.

Referring to the recent file-gnawing feat of Harper's Weekly in its assault upon Southern education and society, with William L. Wilson's letter, that should not have been written, as a text, John K. White, of Portsmouth, Va., writes to the Washington Post as follows:

About fifteen or twenty years ago, when the educational facilities of the South were less than now, the head of the firm of Harper Bros. sent his son to a Virginia school for three years. The school was at Petersburg, and the headmaster was Capt. W. Gordon McCabe, now of Richmond. With the world to choose from, Mr. Harper chose a Southern school, and did not find himself mistaken, for he kept his son there three years. But Harper's Weekly says the educational facilities of the South are poor.

This bit of information demolishes the only defense — ignorance — that might have been pleaded by Harper's Weekly in explanation of its tirade. There is, therefore, no occasion for any further consideration of the subject.

### To Solve a National Problem.

The committee on commerce of the United States Senate has an opportunity to do effective work for the solution of a great national problem—the control and regulation of the Mississippi river. Under a resolution offered by Senator Vest, of Missouri, the committee is charged to report by bill or otherwise on the opening day of the regular session of Congress, in December:

First—What are the causes of the disastrous floods in the Mississippi river and its tributaries, and how can such floods be prevented or diminished?

Second—If such floods are the result to any extent of the destruction of timber upon or near the headwaters of said river and its tributaries, what measures should be adopted to prevent such destruction, and whether reservoirs to hold the water caused by rain or the rapid melting of snow on or near said headwaters should be constructed to prevent the floods caused by the sudden precipitation of the rain or snow water into the streams flowing from the regions where the sources of the Mississippi and its tributaries are located?

Third—Whether said reservoirs, if their construction should be deemed necessary for the purposes before set forth, could not also be utilized for the irrigation of arid lands in the vicinity of such reservoirs.

Fourth—Whether the outlet system by which it is proposed to furnish avenues through which the waters of the Mississippi river can escape in times of flood is practicable or expedient.

Fifth—Whether the present system of improving the Mississippi and Missouri rivers, under which it is sought to confine the water within the banks of said rivers by means of levees, and by such levees, together with jetties at different localities, to increase the erosive power of the current so as to protect the banks and deepen the channel, should be continued.

Sixth—What has been the effect upon navigation and commerce of the jetties at the mouth of the Mississippi river, and what is the present condition of said jetties and their probable future?

Seventh—Whether the Mississippi and Missouri river commissions should be continued in existence, and, if continued, what amendments should be made to the statutes creating such commissions and defining their duties and powers?

Eighth—What legislation is necessary to prevent the enormous destruction of property by floods in the Mississippi river and its tributaries, and what amount of money should be appropriated by Congress for the establishment and maintenance of systematic improvements and safeguards for said purposes?

Whatever doubts on the subject may exist here and there, the Senate is evidently convinced that the question is a national one. A moment's consideration will demonstrate the correctness of that position. In the first place, seven great States—Illinois, Missouri, Arkansas, Kentucky, Tennessee, Mississippi and Louisiana—are liable to loss in time of flood. If they only were involved, their protection would be a matter beyond mere State control. But when the causes of the overflows are to be investigated and means for their prevention are to be devised, twenty-

seven States and three Territories come under the purview. The possible disinclination or inability of the locality of cause to co-operate with that of effect renders it essential for a treatment of the problem from a standpoint of the good of the whole, and the resolution of inquiry and instruction is as comprehensive as could be desired. It covers ground upon which a mass of valuable material has already been accumulated, the utility of the levee and the jetty as means of defense—a disputed point, indeed, but one which has been given rather an affirmative character in the light of recent experiences. The effects of the changes of the face of nature by the advance of civilization, whereby the flow of water into the headwaters and tributaries of the Mississippi may have been accelerated are a comparatively recent field of investigation in this connection, though it should include the work of the plow, and the drain-pipe, the rise of large cities, the extension of the use of steam and electricity, and, perhaps, the possibilities in the diversion of the Chicago drainage from Lake Michigan. Though Col. Charles Ellet, a distinguished engineer, advocated nearly half a century ago the damming of mountain valleys to hold the surplusage of water, the suggestion of reservoirs or receiving basins for spring torrents, to be utilized for irrigation in drouths, may be regarded as modern, and is fascinating alike to the practical engineer and the layman. Should the Senate committee devote the greater part of its energy to these fresher phases, its report will escape much of the useless reduplication which characterizes so many of the results of congressional literary efforts, and, it is believed, will accomplish much practical good. It is wise in adopting the plan of preparing for flood in time of drouth. It may evolve a plan of storage and distribution of flood-waters, if it is too late to prevent them, which will by one move do away with the danger of overflow in the fertile lowlands of the main stream, and modify the sterility of tributaries' territory. But it must be remembered that "the establishment and maintenance of systematic improvements and safeguards for said purposes" are possible only by realization of the truth, well enunciated by the recent Commercial Congress of the South and West at Kansas City, that—

The Mississippi river and its tributaries belong to the entire country, and are in no sense either the property or under the control of the States along which or through which they run. The people who live upon their banks are subject to serious disaster by reason of frequent overflow, and are entitled to protection. By reason of the magnitude and character of the work necessary to afford this protection, together with the legal questions involved, it should be in the hands of the national government, which should undertake and complete this work as rapidly as may be consistent with its conditions.

According to a dispatch from Knoxville, Tenn., a company has been organized under the title of the Jellico Coal Co., Limited, to purchase the entire output of the mines in the Jellico district. Russell A. Clapp is president; John Boyd, vice-president; R. Wooldridge, secretary and treasurer, and Robert Gayle, manager. The headquarters of the company will be at Jellico, Tenn.

The Harpers will publish on the 25th of this month: "An Epistle to Posterity," by Mrs. John Sherwood; "Theory of Thought and Knowledge," by Prof. B. P. Bowne; "Sweet Revenge," by F. A. Mitchel; "Georgia Scenes;" "The Pursuit of the House-Boat," by John Kendrick Bangs, and a new edition of Samuel Johnson's "Alexander Pope," edited for use in schools by Kate Stephens.

### WILL STUDY THE SOUTH.

#### Official Consideration to Be Given It by the Secretary of Agriculture.

"Prompted by a direct intimation from the President himself, this department may be relied upon to give the South certainly as large a share of official consideration as it has ever received before, and I believe it will turn out to be a little larger." Such was the encouraging assurance vouchsafed to the Manufacturers' Record by Secretary of Agriculture Wilson, who in the same breath added: "And with that end in view I am going, just as soon as I can manage to get away, to make an extended trip throughout the South, studying its resources and its needs and getting better acquainted with the Southern people on their native heath."

I found in Secretary Wilson one of those thoroughly in earnest men whose frank, absolutely unaffected manner is calculated to make one who has just been introduced feel as if he had unexpectedly discovered a man who, at some time or other, had been his friend, though he can't exactly remember when and where. He is a man with the rare gift of making the self-same words sound as those of a plain every-day man to the untaught listener and to the man of the schools as scholarly. And thus you feel that he is your kind of a man. And that was why, after five minutes with him, it came into my mind that if all the farmers in the Union, republicans, democrats and populists, could be brought to talk at close quarters with the head of the government department created for the purpose of looking out for their interests, they would all pretty soon forget whether his politics tallied with their own or not. And such of these as might come up from the South would also be made to feel that Secretary Wilson knows no sections.

"Having lived in the North," he replied when asked about his interest in the South, "I do not know as much about your part of the country as I should like to know and as I intend to know. And so until I can start on my Southern trip I shall always be glad to talk with Southern men who are in a position to acquaint me with the needs of the South from the point of view of the department, and to suggest how I may lend a helping hand in promoting the South's prosperity.

"I am particularly anxious when I go South to get in touch with your farmers or planters, as I believe you call them."

"No," I replied, "except in a few districts where immense tracts are still devoted exclusively to cotton, we do not say 'planters' any more. Indeed, exclusively cotton plantations are becoming rarer each year. And as the all-cotton system yields to the diversification of crops there will be an end of the 'planter' both in name and in fact, and we shall then have nothing but farmers, and, in the main, prosperous farmers, in the South."

I have reason to believe that Secretary Wilson is not the only member of President McKinley's official family who has been advised to keep a friendly eye on the South, and to bear in mind the truth of the motto of the Manufacturers' Record, "the development of the South means the enrichment of the nation."

THOMAS P. GRASTY.

#### An Expert in Statistics.

The business man and the farmer who are students of the statistical reports of the United States Department of Agriculture will be interested in knowing something about the career of Mr. John Hyde, now a special statistical expert of

the department, who on July 1 will become chief of the division of statistics. He was born in England forty-nine years ago, and developing as a youth the statistical turn of mind, came to the United States about sixteen years ago, after attaining prominence through his investigations into the ravages of the rinder-pest, pleuro-pneumonia and foot and mouth disease, and the effect of such maladies of cattle upon the price of meat. After traveling extensively in the West and rendering service as statistical expert for a Chicago publishing house, he joined in 1882 the editorial staff of the Prairie Farmer, and in 1884 that of the Bankers' Monthly. From 1885 to 1890 he was engaged almost exclusively in a systematic investigation of the resources of the United States. In 1890 he became an agricultural expert of the eleventh census. Mr. Hyde belongs to the National Geographic Society, the State Historical Society of Wisconsin and the Alaskan Society of Natural History and Ethnology.

### TYPES OF LOUISVILLE.

#### Striking Features of Some Leading Establishments.

By Gen. I. W. Avery.

No stranger should visit Louisville, Ky., without strolling out Fourth avenue, starting from Main street at the fine Columbia Building, the home and property of the "Columbia Finance & Trust Co.," picking the time on any clear day from 4 P. M. to sundown, and leisurely walking out to Broadway street at least.

Fourth avenue is the fashionable retail street; it is a succession of stores of every kind, glittering with the best goods artistically arranged, and the streets and stores are thronged and brilliant with the changing, ceaseless current of the beautiful women of the city, promenading and shopping in their tasteful street costumes.

It is an inspiring spectacle. The fronts of the stores are bright and attractive, the great windows resplendent in their glory of beautiful wares arranged with consummate art to woo the gaze and win the buyer.

The street at such times is typical of many things of Louisville. First and foremost, of the enterprise, extent, completeness and modern up-to-date finish and character of its retail business, but also demonstrating its valuable constituency of wealthy and liberal buyers and appreciative patrons.

And there is no better exemplar of these magnificent retail business establishments than the dry goods and general notion house of Kaufman, Strauss & Co., in their own ornate building, with their perfect choice of stock, faultless methods and politeness of service.

Louisville has some rather remarkable business establishments. It is a matter of doubt whether any other city in the Union has a better and more complete warehouse than that of the "Louisville Public Warehouse Co.," under the able presidency of Mr. W. G. Coldewey. The company has twelve great houses, new, modern, fire-proof, and it stores everything. Louisville is a city of warehouses, and this is its finished and perfect establishment.

Another consummately conducted concern is the lumber and mill plant of "The Bell & Coggeshall Co.," with Mr. F. L. Chase as president and manager.

And an example of bold and successful enterprise in a new field in the South is the prosperous and rapidly-growing chewing-gum factory of the "Kis-Me Gum Co.," whose live president is Mr. T. L. Jefferson, just elected the president of the powerful "Commercial Club" of

Louisville, in recognition of his go-ahead qualities.

### Industrial News from Birmingham.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., May 18.

The past week developed a change for the better in the iron market, both in demand and prices. The depression is ended. While the buying has increased, the feeling of confidence in prices seems also to have grown. At any rate the assaults on prices have moderated very much, and transactions are now made with only a tithe of the objections and dickerings that have characterized the market. The interest leading in low prices has booked more orders, it is said, than it ever carried heretofore at any one time, and does not care to book additional orders at duplicated prices. This will end the slashing of values and give to the market a steadier tone and better values. There were several bids of \$5.50 for gray forge, one being for 5000 tons, but they were all declined. There was one sale of 2000 tons at \$5.90, but it was the exception. The market was "notched" at \$6 for gray forge, and very steadily held there. This makes No. 2 foundry \$6.50. No. 1 foundry has become scarce, as also are the soft grades. For No. 3 foundry, interests short of this grade are offering \$6. So it doesn't look as if the district was loaded down with stock and wanted buyers at any price.

With the advance scored for iron in Great Britain comes a renewal of export business from that source, as well as from the Continent. Among the sales noted is one for 2000 tons to Hamburg.

The feeling is that the trade will increase. The Pioneer Company, which represents the Thomas interest, and which has been quiet for nearly ninety days, has blown in one furnace and is making ready for general resumption of business at an early date. No better evidence of a clearing of the iron sky could be given out than this action. At the rolling mill they are operating a portion only of the plant, and varying the character of the production to suit the demand. The work on the steel plant progresses with energy, and so far without any material hitch, and it will be one important enterprise completed on time. The monthly report of the Alabama Car Service Association shows for April a movement greater by 256 cars than in April, 1896. This is a very good barometer of the state of business. The minor industries show no new contracts of any moment, and offer nothing for the week for special mention. There have been some recent transactions in real estate, indicating a deepening interest and a moderate enhancement in values.

The drug firm of Nabors, Morrow & Sinnage will erect a five-story building for their business on Twentieth street, and on Second avenue a fine building suitable for the dry-goods business will be erected and occupied by Caheen Bros. Other improvements of a "cityified" character are discussed, but have not reached the stage of definiteness justifying mention. The prospect now is for a very busy summer just ahead of us in the building line, as well as in those lines that are the mainstay of the city. The fever of improvement seems to pervade every part of the city, for go where you may in it, and the practical evidence of its being greets both sight and senses.

J. M. K.

The American Protective Tariff League has just issued, in document form, the speech of Senator Elkins, of West Virginia, on the subject of the "American Merchant Marine and Discriminating Duties."

May 21, 1897.]

## MANUFACTURERS' RECORD.

291

**"UNFAIR AND CALCULATED TO WORK INJUSTICE."**

**Such Is Dr. C. W. Dabney, Jr.'s, Opinion of the Attempts to Conjure up a Suspicion of Monopoly Against the Cylindrical Baling System.**

In the New York World of Sunday appeared an article on the cylindrical cotton bale. The tremendous potential of this innovation required that an enterprising metropolitan daily should devote enough space to it to indicate its advantages as compared with the existing system of packing the South's chief staple; but coupled with a few facts about the new bale was an intimation that the plan for introducing it savored of monopoly. Thus the World said that "President Searles in an interview frankly admitted that the American Cotton Co. intended to keep full control of the new process and only permit planters to use it under strict responsibility as to the character of the packages and contents." In printing that the published expressions of Mr. Searles relating to this plan were ignored, and it was stated (upon what authority did not appear) that the cylindrical compresses cannot be bought, but must be leased from the American Cotton Co. upon terms which it dictates. And out of this a frightful monopolistic bugbear was conjured up.

The Manufacturers' Record has advocated this instrumentality for improving the form of the commercial package of greatest significance to the South, and, as many other Southern papers have done, it has even gone so far as to comment approvingly upon the plan indicated in a special announcement from the president of the American Cotton Co., which was as follows: "It has been decided to begin at once the introduction of cylindrical compresses, and under the plan agreed upon planters and ginners will be able to avail themselves of the benefits of this invention on a liberal co-operative basis, with a market for their cotton assured." This ought to have doomed the monopolistic willopus-wallopus for good and all.

Although it is like threshing over old straw, yet happening to have a favorable opportunity for consulting a high authority on Southern agricultural needs and conditions, I decided to avail myself of it, to the end that the public be given an absolutely unbiased opinion as to the fairness of the plan criticised by the New York World.

As everyone in the South knows, the former Assistant Secretary of Agriculture, Dr. Charles W. Dabney, Jr., of Tennessee, who has been retained by the new administration and placed in charge of the scientific and statistical work of that department, is admirably qualified to express such an opinion on this issue. I therefore considered his opinion as entitled to more consideration than that of a reporter for a New York daily.

"Will you kindly read this criticism of the American Cotton Co.'s plan of campaign," said I, "and as an expert on Southern agriculture, familiar with the evils of the existing system of baling and handling cotton, tell me whether, in your opinion, any plan, other than the one which the article in the World criticises, could be fairer alike to the growers and the spinners of cotton?"

"The cylindrical bale," said Dr. Dabney, "is certainly an innovation which deserves the approval of all who have the South's material interests at heart, and any plan for introducing it, in which the work of bunglers or inexpert handlers could by any possibility interfere with the desirability of the cotton from the spinner's point of view, either on account of 'mixed pack,' or otherwise, would operate as injuriously to the

growers as to the company which controls this invention.

"Viewed from the grower's standpoint alone," he continued, "the greatest care in preventing the possibility of bad work is to be commended, for it is easy to imagine how an indiscriminate use of the mechanism for making the cylindrical bales might result in such bad packing as to prejudice the spinners against the new system.

"Therefore, as the company must stand between the grower and the spinner, safeguarding its own interests and theirs simultaneously, I cannot see that there is any ground for criticising a policy the effect of which will be, as the World admits, to hold the planters and ginners to strict responsibility as to the character of the packages and contents."

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"The concern is known as the American Cotton Co. It was incorporated under the favorable laws of New Jersey in March, 1896, and it has a paid-up capital of \$6,000,000, of which one-half is preferred. Its shares are not yet listed on any exchange, but they will be some day, and will give United States senators and other insiders as big a field for their speculative tendencies as Sugar Trust stock has.

"John E. Searles, the secretary and treasurer of the Sugar Trust, is the president of the company. Associated with him are such astute financiers and cotton experts as Stuyvesant Fish, president of the Illinois Central Railroad; former Secretary of the Interior D. R. Francis,

Jerome Hill, D. C. Ball, Senator Jones, of Arkansas; B. P. McDonald, a director of the Missouri, Kansas & Texas Railroad, and Bart Moore, of Waco, Texas.

"It has secured the control of the patents covering a comparatively new machine which packs cotton in what is called cylindrical bales, a process that makes such a great saving in the cost of producing cotton and actually delivering it to the spinner that it is but a question of a few years when it will be impossible to remain in the cotton-producing business without using the machinery. The machinery cannot be bought. It must be leased from the American Cotton Co. on terms which it dictates.

"Experts estimate that if the new method of baling cotton is universally adopted there will be \$30,000,000 a year saved in the actual cost of delivering cotton to the spinner.

"Without this machinery the plantation owner has taken his crop, put it through the gin and baled it in what were approximately 500-pound packages.

He has then had to ship it to his commission merchant, who has sent it to his compressor, the commission merchants owning all the compressors, to have the bale reduced in size to a convenient shipping form. Then the bales were shipped to the spinner at the mill. There have had to be added to the actual cost of producing cotton, therefore, the freight from the plantation to the compressor, insurance and storage at the compressor and commissions to the commission men, on top of which came the freight from the compressor to the mill.

"Under the new process the machinery is such that it will be placed on the plantation with the gin and will turn out the cotton in a great rolled bat that is so tightly compressed that a 500-pound bale will only be one-half as large as the present bale of the same weight. It will turn it out, too, in such a condition that it can be shipped directly to the spinner and fed directly to his machinery without further handling.

"The tremendous economies are evident. Twice as many bales can be shipped or stored in a given space under the new process as could be under the old. Freight rates from the gin to the compressor will be saved.

"There will be, too, a vast saving in insurance, as under the new process the rolled bat will be wrapped in a light covering that is water-proof and almost fire-proof. The commission merchants, or middlemen, will be driven from business.

"The absolute control of the new process by the American Cotton Co. seems almost certain, experts say, to give it the supreme control over the cotton industry, as the Standard Oil Co. has over the output of petroleum or the American Sugar Refining Co. over the output of sugar. By guaranteeing the quality of the cotton in the bales packed by the new process the company has succeeded in creating a demand for its goods that has far exceeded its ability to produce it, owing to the time needed to construct machines."

But, after all, it is no more than might have been expected for the New York World to conjure up bugbears and horifying apparitions, and in so doing to ignore the interests of the South, concerning which it seldom, if ever, utters a friendly word. Let us see if its editor will condescend to notice the calm, conservative expert opinion which Dr. Dabney has expressed.

THOMAS P. GRASTY.

If you are thinking of enlarging your mill, factory or mine, or of purchasing machinery of any kind, send us a postal card giving the character of the machinery needed.

**RAILROAD NEWS.**

(A complete record of all new railroad building in the South will be found in the Construction Department.)

**\$30,000,000 IN BONDS FLOATED.**

**The Illinois Central Co.'s Financial Strength Shown by the Placing of this Amount of Its Bonds at Only 3½ Per Cent. Interest.**

President Stuyvesant Fish, of the Illinois Central Railway Co., in a telegram to the Manufacturers' Record, confirms the statement that this company has made arrangements covering an issue of \$30,000,000 in 3½ per cent. bonds. The contract has been made with Messrs. Kuhn, Loeb & Co. and Vermilye & Co., prominent banking houses of New York, who also represent extensive foreign connections.

The details of the transaction are as follows:

Of the new securities, \$20,000,000 are Chesapeake, Ohio & Southwestern purchase-money mortgage bonds, issued to reimburse the Central for its expense in acquiring that property, and \$10,000,000 are first mortgage bonds of 1896, issued on the St. Louis division, comprising the old St. Louis, Alton & Terre Haute Railroad. While the contract is for the ultimate sale of the whole \$30,000,000 of bonds, only about \$6,000,000, part of each issue, will be delivered at once. The remainder will be issued from time to time as deemed best. The new Chesapeake, Ohio & Southwestern loan, \$20,000,000, will be dated July 1, 1897, and mature July 1, 1933. The mortgage will provide that \$5,000,000 additional bonds, and no more, may be issued for future betterments and new property. The Illinois Central issued in 1895 about \$5,000,000 of 4 per cent. 2-10-year bonds, subject to call at par, to pay for the second mortgage bonds and other securities of the Chesapeake, Ohio & Southwestern that were purchased from Mr. C. P. Huntington. These bonds have not yet been called for payment, but they will be redeemed by the company and the new bonds issued in their stead whenever the syndicate so requests.

Since the Illinois Central took possession of this line it has simply spent the receipts of the property in bettering it, replacing all of the 54-pound steel with 75-pound steel, strengthening the bridges, putting in a large quantity of additional ballast; it is now painting and repairing the stations; in short, getting the whole property up to the Illinois Central standard.

Of the balance, \$6,500,000 will be used to retire the same amount of bonds now bearing from 4 to 7 per cent. interest, the remainder to be used for improvements, betterments, etc., and to construct extensions if desired.

In addition to this issue the company has also sold to the same houses \$1,350,000 in bonds of the Chicago, St. Louis & New Orleans division, to be issued November 1, in place of divisional bonds. The company has arranged also with them to renew at 3½ per cent. the 7 per cent. bonds of the Springfield division maturing next January.

This is one of the most important railroad financing schemes which has ever been consummated in this country. It is especially important to all interested in the South, as a large portion of the new issue is for the Chesapeake, Ohio & Southwestern division of the Illinois Central, which comprises 442½ miles of line south of the Ohio river. As already noted, the banking-houses interested are agents of large foreign investors, and the presumption is that a large quantity of the new

securities will go abroad. To say that the successful culmination of this deal reflects great credit upon the Illinois Central Company is faint praise. It indicates significantly the confidence which investors, both in this country and Europe, have in the present administration of the railroad and the ability and conservatism shown by President Fish, Vice-President Harahan and their associates in operating the system. The fact that this company can place \$33,500,000 worth of bonds at such a low rate as 3½ per cent. proves that it occupies a place in the financial world among the strongest railroad systems, including such lines as the Lake Shore & Michigan Southern and other Vanderbilt properties, as well as the Pennsylvania Railroad itself.

#### Development of Pensacola.

In a letter to the Manufacturers' Record relative to the extension of the Pensacola, Alabama & Tennessee Railroad Co., Mr. Henry McLaughlin, its president and its principal owner, gives some interesting facts relative to the development of export trade at Pensacola, Fla.; also the benefit of the line proposed. He describes the situation as follows:

"Those of your readers who are interested in construction of railroads, and are prepared, by occupation and observation, to estimate the value of existing and projected lines of transportation, will readily see that a railroad having one terminus on unquestionably the best harbor on the Gulf of Mexico, and reaching, within a distance of 265 miles, with the other end, the very heart of the Black Warrior coalfields and the Birmingham mineral district, where friendly connections will be made with three systems of railroads radiating to the west, north and east, will certainly become a very important agent in delivering to the ocean transportation lines the products of the grainfields and packing-houses of the West, of the mines of Alabama, and of the yellow-pine forest which reaches 150 miles north from tidewater. The Pensacola custom-house record now shows a very large business with Boston, New York, Philadelphia, Baltimore, and a rapidly-increasing export business with Mexico, Central and South America. It is common to see steamships loading at this company's wharves with lumber for South Africa and for points on the Nile in Egypt, as well as all the important ports of Europe."

"It will be difficult for those who have not kept close watch of the progress of iron manufacture to appreciate that the Birmingham district in Alabama now fixes the price of pig iron in the neutral markets of the world, but this is certainly the fact. Scarcely a steamship leaves this port for Liverpool that does not have, as part of her cargo, 500 or 1000 tons of pig iron. If evidence is wanted that the export business from this place is expected to continue and increase, the very extensive docks and wharves lately completed here, and the grain elevators and other improvements now in progress by those who have been engaged in railroad and ocean transportation for a quarter of a century, is sufficiently conclusive to inspire confidence."

#### Chesapeake & Ohio Improvements.

A dispatch from Richmond, Va., announces that the bridge commissioners have come to an agreement with the Chesapeake & Ohio Railway Co. relative to the improvements which the latter intends making in Richmond and vicinity, and that the railroad company has received the authority to proceed with the improvements. It is understood that this practically settles the

matter, and that work will commence on the terminals in the near future, which have already been described in the Manufacturers' Record.

#### Southern Railroads Again Lead.

The reports of the principal railroads of the country for the month of April, as compiled by the Financial Chronicle, make a very creditable showing for the South. The total increase of nineteen of the principal systems for April was \$1,396,847. Of the nineteen lines, eight were Southern, as follows: Kansas City, Pittsburg & Gulf, increase \$134,349; Southern, \$70,743; Chesapeake & Ohio, \$68,646; Texas & Pacific, \$57,599; International & Great Northern, \$66,340; Missouri Pacific, \$48,793; Cincinnati, New Orleans & Texas Pacific, \$35,184; Louisville & Nashville, \$33,999. This amount represents 36.9 per cent. of the total increase. It should be stated, however, that of the nineteen systems, five were outside of the United States. These were the Canadian Pacific and Mexican railroads. Deducting the earnings of these roads from the total, we find that the Southern lines contributed 70 per cent. of the increase. The principal decreases were confined to ten roads, in which the South was represented by but two.

In the groups of roads, the Southern and Southwestern have excelled all others in favorable statements. Notwithstanding this fact, the earnings of the Southern group show an increase of fully \$100,000 over April, 1896, and the Southwestern group of \$180,000. The Northwestern shows a decrease of nearly \$250,000, the Middle Western of the same amount, and the Pacific an increase of about \$60,000. Commenting on the statement, the Chronicle says:

"The two groups which have done better than any others are the Southern and the Southwestern. In both these groups the gains greatly outnumber the losses. This cannot be explained by reference to the cotton movement, which, as we have seen, in the aggregate did not equal that of last year. It seems to be a fact, however, that general business in these parts of the country has taken on a more hopeful aspect."

#### Southern Railway's Good Example.

In a recent issue the Manufacturers' Record referred to the action of the Southern railroads in reducing the freight rates on iron in order to allow the producers of the Birmingham district to meet competition from Lake Superior and other sections of the country. The Southern Railway Co. has been one of the foremost in co-operating with the iron manufacturers. Vice-President Frank S. Gannon in a recent interview is quoted relative to the reduction as follows:

"This reduction was made to assist the Birmingham district. We are doing business below cost just to stimulate the movement of iron and meet the competition of coal and furnace operators. The cut is only temporary. I cannot say how long it will be in force. This change cannot be called a cut rate; it is merely a uniform reduction on the part of all roads and is an emergency measure. Nothing but enterprise. The prices on iron got so low that the operators and furnace people could not sell without loss, and the cut was made to assist them. Some of the operators had about made up their minds to close down their plants."

This statement of Mr. Gannon shows conclusively that the Southern as well as other railway companies appreciate the value of the revenue accruing from

the Birmingham district, and realize the importance of assisting the manufacturers whenever possible. It has set an example by assuming this attitude towards manufacturers which railroad companies generally should consider carefully.

#### Important Tennessee Project.

It is announced that the property of the La Follette Coal & Iron Co., also the railroad which this company has been building, has passed under the control of the Tennessee Northern Railway Co., which will complete the railroad and develop the coal and iron deposits in the tract. For sometime past negotiations have been under way, with a view of making this transfer. The Manufacturers' Record has already described the La Follette Railway Co.'s interests, which comprise 40,000 acres of timber land and coal and iron deposits in Campbell county, Tennessee. In 1896 work was begun upon the railroad line to connect this tract with one of the larger systems by way of Big Creek Gap. Contracts were let for its construction, and it is understood that the work will be completed within a few months. A sub-company to be known as the Cumberland Coal & Iron Co. will have charge of the mining interests, and it is reported that Boston capitalists are heavily interested. The officers of the Tennessee Northern Railway Co. are Alfred A. Glasier, of Boston, president; Edwin S. Webster, J. C. R. Peabody and W. F. Pope, of Boston, and H. M. La Follette, of Tennessee, vice-presidents; F. W. Rodgers, secretary and treasurer. The headquarters of the company are at La Follette, Tenn.

#### From Augusta to Newberry.

The question of completing the railroad projected several years ago between Augusta, Ga., and Newberry, S. C., has again been taken up, and it is understood that Hon. Patrick Walsh, of Augusta, Ga.; Hon. George Johnstone, of Newberry, S. C., and B. W. Crouch, of Saluda, S. C., are interested with others in a company which will promote the enterprise. Mr. Johnstone states in a letter to the Manufacturers' Record that a line may be built between Whitmire station, on the Georgia, Carolina & Northern division of the Seaboard Air Line, and Augusta, a distance of eighty miles. This would give the Seaboard Air Line a branch to Augusta through Newberry and Edgefield counties in South Carolina, and which would practically be an air line to Augusta. Part of the distance between Newberry and Augusta is already graded. The people in the towns along the road are greatly in favor of the project, it is reported, and the indications are they will aid it financially and otherwise. Several important manufacturing towns are along the road.

#### The Proposed Atlanta Station.

The Southern Railroad Co., through Samuel Spencer, its president, has been instrumental in planning an improvement at Atlanta, Ga., which will be of great benefit to that city. The plan provides for an elaborate union depot and terminal approaches, which will do away with the grade crossings, which at present are a detriment to the city. While the improvements would cost the Southern and Central of Georgia Company, which is also interested in the matter, a very large amount, Messrs. Spencer and Comer, presidents of the companies, have written to the city authorities of Atlanta that they are entirely willing to carry out this improvement as soon as the railroad and city engineers agree upon the plan. This is another instance where railroad companies in the South

show that they are not "grasping monopolies," but corporations which are a benefit to the public generally.

#### Baltimore & Ohio's Western Alliance.

The alliance between the Baltimore & Ohio and the Great Northern Railroad and its connections in the Northwest is one of the most important which has ever been made by the former system. According to Receiver Murray, of the Baltimore & Ohio, it means the combination of transportation lines which extend from Europe to China and Japan. The Baltimore & Ohio makes connection with vessels of the Great Northern Steamship Co.'s line at Fairport, on Lake Erie. These, in turn, connect with the Great Northern Railway system, which has a combination with a line of steamers running from China and Japan to the Pacific coast. The freight delivered to the Baltimore & Ohio for export is carried to the latter's tidewater terminals in Baltimore and Philadelphia, and thence shipped by vessels connecting with the Baltimore & Ohio to Great Britain and the Continent.

#### Want Lower Freight Rates.

A large number of manufacturers of North Carolina have recently taken up the matter of freight rates from points in that State to the Northern and other markets with a view of obtaining a modification from the present basis. At a recent meeting in Charlotte, representatives of sixty cotton mills, tobacco factories and lumber mills were present. Figures were quoted, which, it is stated, show the average freight rate on cotton goods to New York to be much more from North Carolina than from points as far south as Georgia. The same discrimination, it is claimed, is shown to the Western market. It was determined to form an organization, with C. Cone, of Greensboro, N. C., as president, and an executive committee of seven, to bring the grievances of the manufacturers to the attention of the railroad authorities, with a view of readjusting freight rates.

#### An Important Short Line.

The extensive property controlled by the Cumberland Lands Co., in Tennessee, will have a railroad connection with the Louisville & Nashville system by the construction of a branch fourteen miles long from Tennessee Ridge, on the Louisville & Nashville, to Bear Spring, which is the headquarters of the land company. In a letter to the Manufacturers' Record Charles Seymour, engineer of the road, states that contracts for grading have been let, and it is proposed to complete the road and have it in operation by October 31. The Cumberland Lands Co., of which J. H. Lory is manager, owns a large area of mineral property, which may be developed as the result of constructing this line.

#### Official Appointments.

James Harrington has been appointed superintendent of the Memphis & Little Rock Railroad, succeeding A. Gordon Jones, who has been appointed assistant superintendent of the Birmingham division of the Southern Railway Co.

Mr. S. P. Stringfellow has been appointed soliciting freight agent of the Seaboard Air Line, with headquarters at Atlanta.

George B. Ecker has been appointed soliciting freight agent for the Atlantic Coast Line, with headquarters at Atlanta.

Charles C. Keen has been appointed soliciting freight agent of the Central of Georgia Railroad, succeeding T. R. Gress.

**The Arkansas Central.**

Relative to the Arkansas Central road, recently referred to in the Construction Department of the Manufacturers' Record, it is stated that the intention of this company is to carry out the project, so often discussed, of building a line from Fort Smith to Little Rock. The entire distance is 135 miles, and it is proposed to build from Fort Smith to Paris, forty-four miles, first. For this purpose promoters of the enterprise claim to have secured \$100,000 in subsidies, and have secured substantial encouragement in other ways. A company has been organized, with \$600,000 capital, including Joseph H. Larimer, of Peru, Ind.; also C. C. Godman, of Chicago.

**Action of Railway Commissioners.**

At the recent convention of the Railway Commissioners of the United States at St. Louis, resolutions were passed disapproving of any modification of the act to regulate commerce passed by Congress, especially if such modifications confer additional franchises or privileges upon railroad companies engaged in interstate commerce. The convention favored the bill asking for the establishment of a national freight classification by the interstate commerce commission.

**A Report Denied.**

Sometime ago the Manufacturers' Record referred to a project to build a railroad through Kentucky from Mississippi river to Cumberland Gap. Among those reported as interested in the matter was Baron de Courtier, who, the Manufacturers' Record was informed, represented a European syndicate. Baron de Courtier has written the Manufacturers' Record to the effect that he has no connection whatever with the company.

**Railroad Notes.**

H. P. Hughes has been appointed traveling agent of the Texas & Pacific system to succeed W. A. Dashiell.

It is reported that the Mobile & Ohio Railroad Co. has given an order for fifteen locomotives to the Rogers Locomotive Works, of Paterson, N. J.

Announcement is made that C. D. Hedge has been elected vice-president of the Missouri, Kansas & Texas Railroad, succeeding Thomas C. Purdy, who has resigned.

The annual meeting of the Georgia Railroad & Banking Co. resulted in the election of C. H. Phinizy as president, and the re-election of the present board of directors.

The Charleston Street Railway Co. has received twenty-two cars for its electric lines in the city. It is expected to place thirty-two in service when the line is placed in operation.

The State of Georgia has determined to sell the Northeastern Railroad on June 21. Governor Atkinson will receive bids, which must be accompanied in each case with a certified check for \$10,000. The minimum price is fixed at \$287,000.

The Seaboard Railway, of Alabama, which extends from Nannahubba to Tuscarora, Ala., has been sold to James L. Lombard and others, representing the bondholders, for \$50,000. The length of the road, including branches, is twenty-six miles. It is a feeder of the Mobile & Birmingham road.

The City Passenger Railway Co. of Baltimore is constructing a number of electric cars for its Charles street line, which is soon to be operated by trolley motors. The cable power-house on Charles street will be used as a storehouse for cars and electric power ob-

tained from its station in South Baltimore.

It is announced that the Southern Railway Co. has leased an office building at the corner of Baltimore and Calvert streets, in Baltimore, and will occupy it after September 1. The building will be the headquarters of J. R. Needham, Baltimore agent, and J. C. Horton, passenger agent.

The Orleans Street Railway Co. of New Orleans, La., has elected A. Brittin, president; E. Perrin, vice-president, and P. Cougot, secretary. The company is considering the idea of issuing \$100,000 in second mortgage bonds for the payment of floating indebtedness and for improvements to the line.

The Baltimore & Ohio Railroad has determined to extend its electric service on a number of the streets of Baltimore. The plan is to use electric motors instead of steam locomotives for shifting freight cars on these streets. Its electric service in the suburbs for shifting purposes is working very satisfactorily.

The Tennessee Central road, it is announced, will be sold by order of the court at Crossville, Tenn., on June 21. Claims of the creditors have been passed upon by the court, and it is stated arrangements have been effected to settle them. The total amount of claims allowed is about \$120,000. The upset price has been fixed at \$125,000.

John Turrentine, Jr., of Wilmington, N. C., has purchased the Carolina, Tennessee & Ohio road, partly graded between Wilmington and Southport, N. C. This road has been purchased by the company to be constructed to Wilmington and a point further west. It was placed in the hands of a receiver sometime ago by order of the court.

The Pennsylvania Railroad Co. has recently completed one of the largest bridges used for railroad purposes in this country. It replaces the one across the Susquehanna river destroyed by high water several years ago. The bridge is 5300 feet long and contains twenty-seven spans. It is built of steel, and, although work was only begun on the 16th of April, the structure is practically completed.

**American Tobacco Co. Meeting.**

The American Tobacco Co., at its annual meeting, elected Ernst Schmeiser, Herman Ellis, of Baltimore; Josiah Brown, Thomas G. Butler, J. D. Cobb and John Doerhoeffer as directors. Messrs. Ellis and Cobb replace Wm. A. Marburg, of Baltimore, and Louis Ginter, of Richmond, who have resigned, while Mr. Schmeiser succeeds George W. Gail, of Baltimore, who has also resigned. The report of the company for 1896 shows net earnings of \$3,593,197, as compared with \$3,971,521 for 1895, and the balance for dividends on the common stock was \$2,480,636, compared with \$3,013,081 for 1895. Dividends on common stock in 1896 were in May 2 per cent. cash and 20 per cent. scrip, and in December 4 per cent. cash. In 1897 3 per cent. cash was paid in February. The surplus December 31, 1895, was \$8,600,373, and the increase in this surplus for 1896, \$864,176.

Governor Culberson, of Texas, has called a meeting to be held at Galveston, Texas, on August 2 for the purpose, according to the circular, "of devising and recommending concurrent legislation in the cotton-growing States, to the end that the cotton industry may be relieved from the speculative and gambling influence that oppresses it, and that unlawful interferences with the cotton trade be suppressed."

**PHOSPHATES.****Phosphate Markets.**

Office Manufacturers' Record,  
Baltimore, Md., May 20.

The volume of business in the local phosphate market continues light, and there is very little demand, either from local or out-of-town manufacturers. From points of production the reports are somewhat more encouraging, and in South Carolina there are indications of a better development among river miners. It is stated that the Beaufort Phosphate Mining Co. has sold upwards of 30,000 tons for future delivery. Prices continue nominally steady at \$3 for crude rock at the mines, hot-air-dried \$3.25 f. o. b. Ashley river and \$3.45 f. o. b. Charleston, S. C.

Advices from the Florida phosphate field are encouraging, while prices are very firm, with good shipments from the ports. In the Tennessee phosphate field the work of development is being vigorously pushed, and several shipments are being made through the port of Pensacola to German ports. Mining operations in the Mt. Pleasant field are being carried on with more activity, and the output will show a large increase for the present month. As to freight rates on phosphate from points of production, there is no change, and no charters reported in the local market. In New York transactions in sail tonnage continue light, and steamer freights are dull. The following charters of phosphate vessels are reported during the past week:

A British steamer, 1348 tons, from Tampa to Garston or Belfast with phosphate rock at 15/9; British steamer Aureola, 1508 tons, from Pensacola to London or Hamburg with phosphate rock at 16/9, May 20-June 20; a schooner, 380 tons, from Charleston, S. C., to Seaford, Del., with phosphate rock at \$2; Greek steamer Marietta Ralli, 1500 tons, from Fernandina to Hamburg with phosphate rock at 15/9, and a British steamer, 1702 tons, from Fernandina and Savannah to Hamburg with phosphate rock and cotton on private terms.

**Fertilizer Ingredients.**

The market for ammoniates has ruled fairly active during the week, and advices from the Eastern market are favorable, showing a good volume of business. The Western market is active, with considerable selling both for spot and future delivery. The demand from the South is very light. Sulphate of ammonia is steady, with a fair demand. There is considerable inquiry for blood and tankage. Nitrate of soda is steady.

The following table represents the prices current at this date:

Sulphate of ammonia (gas). . . . .	\$2 30	@ 2 32 1/4
Nitrate of soda.....	1 02 1/2	1 95
Blood.....	1 60	—
Hoof meal.....	1 50	—
Azotine (beef).....	1 60	@ —
Azotine (pork).....	1 60	@ —
Tankage (concentrated).....	1 50	@ 1 55
Tankage (9 and 20).....	1 52 1/2	and 10
Tankage (7 and 30).....	15 00	@ 16 00
Fish (dry).....	18 50	@ 19 00
Fish (acid).....	11 00	@ 12 00

**Phosphate and Fertilizer Notes.**

The British steamship Capenor arrived at Brunswick, Ga., last week to load phosphate rock and other merchandise for A. F. Churchill for Europe.

It is stated that the Beaufort Mining Co., of Beaufort, S. C., has recently sold 30,000 tons of phosphate rock and purchased a new dredge, with which to increase its mining capacity.

There is considerable activity among phosphate miners near Morriston, Fla. The Florida Phosphate & Mining Co. is using a large force of hands and the Standard Phosphate Co. shipping large cargoes of rock.

At an election last week in New Or-

leans for directors of the National Acid Co., of that city, the following gentlemen were elected to serve for the ensuing year: John S. Rainey, C. M. Soria, A. Baldwin, F. T. Howard, John Barkley. At a meeting of the directors on the 12th inst. John S. Rainey was elected president; C. M. Soria, vice-president, and Charles Rainey, secretary and treasurer.

The shipments of phosphate rock from the port of Charleston, S. C., for the week ending May 14 were as follows: Schooner Harry B. Ritter for Philadelphia with 927 tons, and schooner Bertha F. Walker for Baltimore with 1010 tons. The total shipments coastwise from Charleston from September 1, 1896, to May 14, 1897, aggregated 67,458 tons, against 80,962 tons for the corresponding period last year.

The British steamship Tropea arrived at Savannah last week from Fernandina, Fla., where she had taken on 4305 tons of phosphate rock and finished loading at Savannah with 1296 tons more, the total cargo being cleared for the port of Hamburg. The Tropea went to sea drawing twenty-two and a-half feet. The steamship Elton cleared the same day for Marseilles with 1090 tons of phosphate rock and other cargo. The steamship Osborne cleared for Bremen with 2020 tons of phosphate and other cargo.

**Iron Markets.**

Cincinnati, May 15.

A more hopeful feeling this week, based on the fact that inquiries have been received from several large buyers, who evidently believe that this is an opportunity that ought to be embraced, to cover their probable wants during the next four to six months. The very deep cuts in prices that were reported before the drop in freight rates are not heard of now. So far as can be ascertained, stocks of iron in the South are not accumulating. Reports received show that one of the well-known Alabama companies has a larger tonnage of orders booked now than at any previous time in its history, and its production will be decreased on account of a portion of its plant being stopped for repairs. It is also stated on good authority that other Southern furnaces will blow out because of their inability to produce iron at current prices.

In the North it is believed that the producing capacity will be lessened by more furnaces banking or blowing out soon, and it is hoped that consumption will overtake production within the next thirty days.

Collections continue fairly good, and failures among iron works are very rare, notwithstanding the pessimistic forebodings of some who say it is not possible for iron consumers to continue selling their product at present figures without many failures during the summer. There is a universal hope expressed that the long-promised revival in business will take place not later than early fall.

We quote below the prices for this market cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry. . . . .	\$9 25	@ \$9 75
Southern coke No. 2 foundry. . . . .	8 50	@ 8 75
Southern coke No. 3 foundry. . . . .	8 25	@ 8 50
Southern coke, gray forge. . . . .	—	@ 8 25
Southern coke, mottled. . . . .	8 00	@ 8 25
Southern coke No. 1 soft. . . . .	8 75	@ 9 00
Southern coke No. 2 soft. . . . .	8 50	@ 8 75
Belfont coke No. 1, Lake Sup. . . . .	11 00	@ 11 25
Belfont coke No. 2, Lake Sup. . . . .	10 50	@ 10 75
Hanging Rock charcoal No. 1. . . . .	14 50	@ 15 50
Tennessee charcoal No. 1. . . . .	12 50	@ 13 00
Jackson Co. silvery No. 1. . . . .	12 50	@ 13 00
Standard Georgia car-wheel. . . . .	14 25	@ 15 00
Tennessee car-wheel. . . . .	13 00	@ 14 00

New York, May 15.

So far as current events are concerned, there is little in the iron market to make note upon. It is closely linked to the general business situation, and the general business situation is in every respect a waiting one. A good deal of pessimism is heard, as is always the case in dull periods. The opinion which prevails,

however, in best-informed financial and commercial quarters is that the country has within itself every element of recovery from the present stagnation, and that in due time the recovery will come in full measure. In highest financial circles the belief is general that recovery will commence as soon as the new tariff is in effect and crop prospects are assured. If it comes earlier it will be due to the habit of the American people to anticipate or discount future events, which are deemed certain.

In iron, the causes for correction of present troubles are already strongly at work. It is admitted that current prices of pig iron will close at least three out of every four furnaces now running in the United States. The output is now being rapidly cut down, and it will soon be below current consumption, small as the latter is. A very little recovery of demand would then find conditions favorable for a sharp advance. Some long-headed and long-experienced melters appreciate this and are transferring good-sized lots of iron from furnace yards to their own. One strong interest in New York took this week 1000 tons for spot delivery and cash, though they were just about to shut down their works indefinitely.

There are no changes in quotations to report, the furnaces North and South appearing to have found bed rock at last.

We quote for cash f. o. b. docks or cars New York:

No. 1 X standard Alabama...	@\$10 75
No. 2 X standard Alabama...	@ 10 00
No. 1 X lake ore iron...	@ 12 50
No. 2 X lake ore iron...	@ 12 00
Niagara coke malleable...	@ 12 00
Standard Georgia charcoal...	@ 15 50

Chicago, May 15.

Coke irons have now reached prices lower than ever before sold in this market. This fact has spurred up buyers, and considerable inquiry has been the result, also some trading. Prices, however, have been in many cases shaded from those given below, the buyers in every instance receiving all the benefits of recent freight reductions.

It is said that local irons are meeting the reduced prices of the Southern product.

We quote f. o. b. Chicago as follows:

Local coke foundry No. 1.....	\$10 50@ \$10 75
Local coke foundry No. 2.....	10 25@ 10 50
Ohio Scotch No. 1.....	12 00@ 12 25
Jackson Co., Ohio, silvery.....	13 00@ 15 00
Southern coke No. 1 foundry.....	10 25@ 10 50
Southern coke No. 2.....	9 75@ 10 00
Southern coke No. 3.....	9 50@ 9 75
Southern coke No. 1 S.....	9 75@ 10 25
Southern coke No. 2 S.....	9 50@ 9 75
Southern silverites.....	10 25@ 10 50
Mannie.....	11 50@ 12 25
Lake Superior charcoal.....	13 00@ 13 50

Philadelphia, May 15.

It cannot be said that there is any decided change for the better in the conditions of the iron market, but the recent reduction in freight rates and the extremely low prices being made by producers have brought quotations down to a point that is conceded to be bed rock. Anything lower will force a decrease in production, and even a slightly-increased demand would have a tendency to cause an advance.

The usual number of orders for early delivery of small lots have been booked, and several important deals are under consideration.

On the 13th inst. the companies interested in the steel beam pool met in this city and dissolved their organization. Whether an open market on their product will stimulate business remains to be seen.

We quote for cash f. o. b. Philadelphia docks:

No. 1 X standard Alabama...	@\$10 75
No. 2 X standard Alabama...	@ 10 00
No. 1 X lake ore iron.....	@ 12 50
No. 2 X lake ore iron.....	@ 12 00
Niagara low sulphur coke malleable.....	@ 12 00
Georgia warm-blast C. C. for car wheels, chilled and sand rolls.....	@ 15 50

ROGERS, BROWN & CO.

## LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### LUMBER MARKET REVIEWS.

#### Baltimore.

Office Manufacturers' Record,  
Baltimore, Md., May 20.

In the local lumber market there has been more activity during the past week, the weather being quite favorable for handling material. Receipts of all kinds of lumber are light, and in yellow pine stocks are fully ample for the demand. There has been a better inquiry for air-dried yellow pine during the week, both from boxmakers and from yardmen and planing mills. Some quite respectable sales have been reported, but at very low prices. The demand for kiln-dried North Carolina yellow pine continues good, and prices are firmer, with orders more numerous. In white pine there is a moderate inquiry, with values firm and stocks not excessive. Cypress is quiet and steady, with a moderate inquiry. There is no material improvement in the hardwood market, and the local demand, as well as that from out-of-town buyers, is light. Very little is doing in the export business, and shippers are not operating on an extensive scale. There is considerable demand from the United Kingdom and continental ports for lumber, and several large manufacturers are under contract for some large lots. Planing mills, box factories and other woodworking concerns report business as somewhat improved.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

#### VIRGINIA AND NORTH CAROLINA PINE

5-4x10 No. 2, klm dried.....\$12 50@ 13 50

5-4x12 No. 2, klm dried.....14 00@ 15 00

4-4x10 No. 1, klm dried.....15 00@ 15 50

4-4x12 No. 1, klm dried.....15 50@ 16 50

4-4 nar. edge, No. 1, klm dried.....13 00@ 14 00

4-4 wide edge, No. 1, klm dr'd.....17 00@ 18 00

6-4x10 & 12, No. 1, klm dried.....23 00@ 24 00

4-4 No. 1 edge floor, air dried.....13 50@ 14 50

4-4 No. 2 edge floor, air dried.....10 50@ 11 50

4-4 No. 1 12-in. stock, air dried.....15 50@ 16 50

4-4 No. 2 12-inch stock.....12 50@ 13 50

4-4 edge box or rough wide.....7 50@ 8 50

4-4 edge box do. (ord. widths).....6 50@ 7 50

4-4 12-inch rough.....9 00@ 10 00

% narrow edge.....5 50@ 6 50

% wide.....6 50@ 7 50

3/4x9 1/2 and 10 1/4-inch.....8 50@ 9 00

Small joists, 2 1/4-12, 14 and 16.....7 50@ 8 50

long.....8 00@ 9 00

Large joists, 3-16 long and up.....7 00@ 8 00

Scantling, 2x3, 2x4 and 3x4.....7 00@ 8 00

#### WHITE PINE.

1st and 2d clear, 4-4, 5-4, 6-4

and 8-4.....\$47 00@ 48 00

3d clear, 4-4, 5-4, 6-4 and 8-4.....42 00@ 43 00

Good edge culls.....14 50@ 15 50

Good stock.....16 50@ 17 50

#### CYPRESS.

4-4x6, No. 1.....\$19 50@ 20 50

4-4x6, No. 2.....13 50@ 14 50

4-4x6, 16 feet, fencing.....10 00@ 11 00

4-4x6, rough.....8 50@ 9 00

4-4 rough edge.....8 00@ 8 50

4-4 edge, No. 1.....16 00@ 17 00

4-4 edge, No. 2.....12 00@ 13 00

Gulf, 4-4, Nos. 1 and 2.....25 00@ 26 50

Gulf, 6-4, Nos. 1 and 2.....28 00@ 30 00

#### HARDWOODS—WALNUT.

5-8, Nos. 1 and 2.....\$65 00@ 75 00

4-4, Nos. 1 and 2.....80 00@ 90 00

5-4, 6-4 and 8-4.....85 00@ 95 00

Newell stuff, clear of heart.....85 00@ 100 00

Culls.....20 00@ 30 00

#### OAK.

Cabinet, white and red, Southern, plain-sawed and good,

1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....\$30 00@ 34 00

Quartered white, Western, 1 and 2 quality, all figured, 6 inches and up wide, 4-4.....53 00@ 55 00

Culls.....10 00@ 15 00

#### POPLAR.

Nos. 1 and 2, 5-8.....\$24 50@ 25 50

Nos. 1 and 2, 4-4.....28 00@ 30 00

Nos. 1 and 2, 6 and 8-4.....32 50@ 33 50

Culls.....11 50@ 12 50

#### SHINGLES.

Cypr., No. 1 h'rs, sawed, 6x20 \$6 25@ 7 00

No. 1 saps, sawed, 6x20.....4 75@ 5 00

No. 1 hearts, shaved, 6x20.....6 00@ 7 00

No. 1 saps, shaved, 6x20.....4 75@ —

#### LATHS.

White pine.....\$1 85@ 2 00

Spruce.....2 00@ 2 10

Cypress.....1 50@ 1 60

#### Norfolk.

[From our own Correspondent.]

Norfolk, Va., May 17.

The market for lumber and other wood products has ruled fairly active during

the past week, and while the general business shows no material increase in volume over last month, the situation is regarded as more satisfactory. At all milling sections stocks are being somewhat reduced, and the present demand generally absorbs the output. Prices for certain grades of lumber are a shade firmer, and throughout the general list values are hardening. Box lumber is now in better demand, and prices are showing a slight advance. Edge box is in light supply, as also 10-inch, and the stock of 8 and 12-inch box will soon be much depleted. The demand for certain grades of lumber for export is steadily increasing, the demand being mostly for No. 1 lumber, while a shipment of box was made recently, the first, it is said, except in the form of shooks. Planing mills are receiving more orders than usual, and dressed lumber is in better request, with prices firm, and all the mills generally busy to supply the demand. The local demand for lumber for building purposes is good, and prices firm for suitable material. The freight market continues steady, with a limited offering of tonnage and rates unchanged. A schooner, 253 tons, was chartered in New York last week to load here with lumber for that port at \$2.15.

#### Charleston.

[From our own Correspondent.]

Charleston, S. C., May 17.

A fair volume of transactions has been recorded during the past week in the various departments of the lumber industry here, while at all adjacent milling points there has been considerable activity in wood and its products. All the mills at Georgetown are very busy and well supplied with orders in lumber, crossties and shingles. Manufacturers are looking for an improvement in all lines of the lumber trade, and under the present conditions prices are expected to show a firmer tone. At the close of business on Saturday the quotations for various grades of lumber were reported as follows: Merchantable, \$14 to \$16 for city-sawed, \$12 to \$14 for railroad; square and sound, \$9 to \$13 for railroad, \$8 to \$11 for raft; dock timber, \$4.50 to \$6.50, and shipping, \$8.50 to \$10.50. There is a good demand for shingles at \$5 to \$7 per thousand. Crossties have been in better request lately, and shipments during this month and early June are expected to increase. Among the vessels clearing during the week with cargoes of lumber were the following: Schooner Collins W. Walton with 342,000 feet of lumber; schooner Florence Randall with 540,000 feet, and steamship Seminole with 10,000 feet among her cargo, all for New York.

The schooner Josephine Elliot cleared last week for Boston with 342,000 feet of lumber. The total shipments of lumber from this port from September 1, 1896, to May 14, 1897, amounted to 42,864,523 feet coastwise and 1,184,000 feet foreign, making a total of 44,048,523 feet, against 52,609,102 feet for the corresponding period last year. Yellow-pine lumber freights are quiet, but firm, at \$4.38 to \$4.50 to New York; ties, 14 to 14 1/2 cents, and dry lumber to Providence, R. I., is quoted at \$4.50 per thousand; crossties, 14 to 14 1/2 cents each. The schooner Virginia was taken last week in New York to load kiln-dried lumber at Beaufort for Philadelphia at \$3.50.

#### Savannah.

[From our own Correspondent.]

Savannah, Ga., May 17.

The lumber market continues to show a fair share of activity, and the movement in wood products has been of considerable volume during the past week. Advices from the various milling sections along the lines of railroad entering this

city are very encouraging, there being a pronounced demand for desirable lumber and crossties. At all Georgia ports nearby the shipments

12 cents per cubic foot for large average girth. There is a spirited demand for lumber of the better grades, with quite an improvement in the South American business. The saw mills at this and adjacent points are all busy and have good orders on file. During the past week the clearances were as follows: Bark Skoda for Buenos Ayres with 576,649 feet of lumber; steamer Dalmally for Liverpool with 135,447 feet; brig Eslitta for Havana with 250,000 feet; steamer Condor for Bluefields with 75,000 feet; steamer Harald for Bocas del Toro with 15,277 feet, and steamer Managua for Belize with 24,396 feet. The bark Carston Boe cleared for Leith, Scotland, with 49,761 cubic feet of sawn timber and 3479 feet of lumber, and the bark Birger for Wollgatt, Germany, with 3345 cubic feet of hewn timber and 471,550 feet of lumber. Lumber freights are steady at \$5.50 to \$6.50 to the West Indies, and coastwise \$5.50 to \$6; Cuba, \$5.50 to north side and \$6 to south side; River Plate, \$10.50 to \$11, American gold. A charter was reported in New York last week of a schooner, 529 tons, to load here with lumber for Philadelphia at \$5.25.

#### Beaumont.

Beaumont, Texas, May 15.

The lumber market presents about the same features this week as for the past month. No relief has come to rescue it from the monotony of low prices, which has lately been its chief characteristic. Orders have shown a slight tendency to fall off, but no change has yet been seen in this direction but what might be ascribed to the regular fluctuations of trade. It is probable that the mills in this section will reduce their running time unless some favorable circumstance occurs to improve the general stagnation now existing.

Several of Beaumont's representative lumbermen went over to Orange the early part of the week and had an informal discussion of the situation with the Orange millmen. Nothing definite was accomplished, but sufficient interest was awakened in Orange to encourage a trip to Lake Charles, and, increased by several Orange lumbermen, the party went on to Lake Charles for another consultation with the millmen of that place. An effort will likely be made to obtain a general meeting of the lumbermen in this district and devise some means to relieve the present conditions.

No accumulations of stock are being made at any of the mills, and there is no desire to stock up mill-yards on material that is scarcely paying the cost of production.

Some railroad material is moving out, and the recent floods have helped to increase the business in this line.

A bill was placed with one of the Orange mills the latter part of this week for about 60,000 feet, which will be used in the improvements at Sabine Pass. The export trade has been rather quiet of late, but indicated an improved state for the coming month. Freight rates are growing a little more favorable, and shipping will feel the stimulus.

There is now due at the Pass on charter for W. S. Keyser & Co. the steamship Victoria, which will take out a cargo of 2,000,000 feet, mostly timbers. Another steamer due to load for the same company the forepart of June will carry away 2,000,000 feet more.

The month of June promises to be a busy one with exporters at Sabine Pass. It is reported that about thirty vessels are due to load from there during the month.

The Beaumont Lumber Co. shipped ten carloads of lumber to Cuba this week. The load went to Galveston over the Gulf

& Interstate, and will be placed on a vessel at that point.

The Calcasieu Export Co., of Lake Charles, has contracted with Clark & Co., of Galveston, to have 10,000,000 feet of lumber lightered from Lake Charles to Sabine Pass for export.

It has not been officially announced, but nevertheless a rumor is current in Orange that a large sale has been perfected for South American shipment by one of the Orange mills. The purchasers are said to be New York and Boston parties.

The schooner V. Y. Hermano was cleared by the Lutcher & Moore Company Friday for Alvarado, Mexico, with 251,000 feet of lumber. W. F. F.

#### St. Louis.

[From our own Correspondent.]

St. Louis, Mo., May 17.

The week under review throughout the general market for wood and its products has developed few changes since last report. The trade generally is fully up to that prevailing a year ago, and there is a good general demand, especially for hardwoods. In yellow pine prices are very low, and from Southern milling sections manufacturers report no indication of any immediate advance. The movement is said to be general, and in some sections the sales exceeded the output of the mills during the month of April. Stocks are somewhat reduced in certain localities, and the assortment more or less broken. Dimension stock and flooring are in light supply, and piece stuff is also short. There has been considerable activity in white pine, and orders have been coming in quite freely. In a local way there is a large amount of building going on, which has caused a better flow of trade. The total building permits taken out in this city during April amounted to \$2,017,135, against \$902,544 last year, an increase of nearly 125 per cent. Rafting of white pine has set in around the wholesale yards on the river front, and things are moving briskly. The hardwood trade is much better now than during April, and orders are coming in more freely. The furniture manufacturers are placing more orders than usual, and in this line business is slightly improved. There is a good demand for bridge timbers and plank, and there is a good demand from box factories and planing mills. Car builders of this city are now very busy with orders, and from this source there is a good inquiry and demand. Prices for oak are very firm, and in dry quartered white oak there is a good movement. Poplar is firm, with a good demand for thick and wide dry stuff. Cottonwood is also active, with a good demand for box and wagon boards both from local and out-of-town buyers. Nearly all grades of walnut are moving freely, with prices firm. There is a good trade in ash, with prices very steady.

#### Lumber Notes.

The schooner Francis C. Yarnell sailed from Brunswick last week for Portland, Me., with 400,000 feet of lumber from C. S. Hirsch & Co.

The firm of John J. Simpson and W. A. Harper has been incorporated at Atlanta, Ga., as the Georgia Shingle Co., with a capital stock of \$6000.

The saw mill of Bradford Bros., eight miles west of Tallahassee, Fla., was destroyed by fire on the 9th inst. The loss is over \$2000, with no insurance.

The dry-kiln of the large lumber mill of J. N. Bray & Co., of Valdosta, Ga., was destroyed by fire on the 15th inst., together with about 60,000 feet of lumber and other material. The loss is esti-

mated at about \$4000, with insurance about \$2000.

The Pasquotank Lumber Co., of Elizabeth City, N. C., recently made the largest cut of any single band mill in that section in one day, having disposed of 443 logs.

The McMillan Saw Mills, at Pine Barren, twenty-eight miles north of Pensacola, Fla., were burned last week. The dry-kiln, with 54,000 feet of lumber, was also destroyed.

The Tunis Lumber Co., of Norfolk, Va., is filling a bill of 200,000 feet of yellow-pine lumber for the construction of grandstands in London to be used at the Queen's jubilee celebration.

The Beaumont Lumber Co., of Beaumont, Texas, shipped about ten carloads of lumber about ten days ago via the Interstate for Galveston, where it was loaded on a vessel for Cuba.

A charter was granted last week to the Geich Furniture Co., of St. Joseph, Mo. The capital stock is placed at \$10,000. The incorporators are J. H. Geich, L. W. Bugenstock and Ernest Lindsay.

Mr. James Zeigler and others from Oil City, Pa., are about to erect a saw mill at Citronelle, Ala. The machinery and other supplies have already arrived, and will be placed in position shortly.

The foreign exports of wood and its products from the port of Galveston from September 1, 1896, to May 1, 1897, amounted to 21,788,000 feet of lumber, 1,765,000 feet of timber, staves valued at \$130,975 and logs of wood \$58,887.

Mr. C. A. Epping, manager of the Calcasieu Lumber Co., while in Beaumont, Texas, last week closed a contract with Clarke & Co. for lightering 10,000,000 feet of lumber from Lake Charles, La., to Sabine Pass, which will be exported to foreign markets.

There has been a fair logging tide in the Tennessee river during the past three months, and since January last over 18,000,000 feet of logs have arrived at Chattanooga. The three milling companies in that city are well supplied with logs, and expect to receive 2,000,000 feet more this week.

The saw mills in East Texas are receiving some very large orders for timber and crossties for Mexican railroads. The Hope Lumber Co. has just closed an extensive contract with the Sierra Madre Construction Co. for ties and timbers for a new railroad now building from Juarez to the coast.

The Vicksburg Land, Manufacturing & Improvement Co., of Vicksburg, Miss., is to establish a manufacturing suburb to be known as Benbolia. Among the woodworking concerns to be established is a candy and tobacco pail factory to employ 200 hands; also a barrel and stave factory to employ 100 hands.

The Mississippi Valley Cottonwood Association at its meeting last week in St. Louis decided to hold its next quarterly meeting at Nashville, Tenn., August 17 and 18, coincidently with the meeting of the Yellow Pine Manufacturers. The St. Louis lumbermen will make the meeting the occasion of a visit to the Centennial Exposition.

It is stated that the capital invested in the lumber business of Nashville, Tenn., is about \$3,500,000, and the industry employs 2000 men. The yearly output is 100,000,000 feet of lumber. Besides the saw mills, there are thirty establishments which manufacture furniture. There are also several wagon factories and other woodworking concerns.

The two-story brick structure at Danville, Va., owned by the Riverside Mills Co. and occupied as a tobacco-box fac-

tory by Noell & Woodward, was burned on the 10th inst., with its contents, a large stock of lumber and valuable machinery. The loss on the building amounted to \$3000, covered by insurance. The loss on stock and machinery was about \$5000; insured for \$2000.

The steamer Victoria, which is chartered to load wood products at Sabine Pass by Wm. Keyser & Co., is past due, and on her arrival will take on 2,000,000 feet, 100,000 feet of primes and 1,900,000 feet of timbers. Messrs. Keyser & Co. have another large steamer due at the Pass about the 1st of June, which will also load 2,000,000 feet. All of this cargo will be primes except her deck load, which will be timbers.

A fire broke out on the 16th in the new mill of the Parrott Lumber Co. at Richwood, Ga., completely destroying the mill and a three-compartment dry-kiln containing 750,000 feet of lumber. The total loss is estimated at \$35,000, including the lumber destroyed. The company operates two large mills, dry-kilns and planing mills at Richwood, and carried \$80,000 insurance on the entire plant. The capacity of the mill destroyed was about 45,000 feet a day.

A flag pole, perhaps the largest ever turned out in this country, was finished recently at the spar yard of David Baird, in Philadelphia. The main pole is 106 feet long and thirty inches in diameter, and the topmast seventy feet long and sixteen inches in diameter. The timber was furnished by the Baird Lumber Co., of Mobile county, Alabama, which operates large saw and planing mills in that section. Mr. David Baird, of Camden, N. J., is president of the company.

The Mississippi Valley Cottonwood Association at a meeting in St. Louis last week decided to advance the price of all grades of cottonwood lumber \$2 per thousand feet. This action was taken on account of the destruction to cottonwood which the Lower Mississippi floods have caused. The average price of this lumber will hereafter be \$12 per thousand feet. A memorial will be sent by the association to the United States Senate asking that the proposed duty of \$2 a thousand feet, board measure, be levied on all imported lumber.

There was a meeting of the Southern Cypress Lumber Association last week in New Orleans for the purpose of considering matters affecting their business. The various mills reported a good condition of business, with a steady improvement in all lines of the cypress industry. All the mills were working on full time and making good shipments, with encouraging prospects for the summer and fall trade. The association has sent a very fine exhibit to the Nashville Exposition, both of dressed and manufactured cypress lumber, which will be in place in a few days.

A large meeting of lumbermen was held on the 10th inst. at Lake Charles, La., at which representatives from Orange, Beaumont, Westlake and Lockport were present. Among the Texas millmen present were A. Gilmer, of Orange; George Bancroft, of Bancroft & Son, Orange; W. A. Fletcher, of the Texas Tram & Lumber Co., of Beaumont; G. W. Carroll, with the Beaumont Lumber Co.; Wm. Wiess, with the Reliance Lumber Co., of Beaumont, and H. J. Lutcher, of Lutcher & Moore, of Orange. The object of the meeting was to discuss ways and means for improving the present conditions in the yellow-pine districts of that section. The result of their deliberations was that a general convention of lumbermen of Louisiana and Texas should be called at once and discuss the question of improving the lumber situation.

## MECHANICAL.

### Deterioration of Boilers by Incrustations.

By Dr. Otto Meyer, Richmond, Va.

The troubles with boiler waters may be classified under two heads: (1). Incrustation. (2). Corrosion.

A water containing much sulphate of lime and carbonate of lime will rapidly form a very dense and adherent scale in the boiler, which not only causes a waste of fuel, but is a source of injury to the boiler. An incrusted of one-sixth inch thickness will require about 16 per cent., a scale of one-quarter inch 50 per cent., and one of one-half inch thickness 150 per cent. more fuel than clean plates.

At the same time a coated plate becomes hotter than a clean one, and is therefore deteriorated by overheating. Moreover, it is damaged mechanically, because the scale must be removed occasionally by the troublesome operation of chipping it off from the boiler.

While, therefore, a water forming a heavy or even moderate hard scale, as described, is very objectionable, one giving a slight film of calcium compounds cannot be considered harmful, because it affords a protection against several sources of corrosion. All natural waters contain, in a state of absorption, more or less oxygen (from the air) and more or less free carbonic acid, and these two combined will make iron rust if it is entirely unprotected. The corrosion is usually strongest at the water-level, where the oxygen is liberated from the water by heating and attacks the moist iron. Sometimes the corrosion forms pits in the plate in conformation with certain impurities of the iron. Some soft, peaty waters, in addition to carbonic acid, contain vegetable acids, which attack the iron in the same way as carbonic acid, but in a still more pronounced manner. Some mine waters contain even free sulphuric acid, resulting from the oxidation of pyritic ores, and these, of course, will strongly attack all metals in boilers and pumping machinery.

There may be another influence at work which deteriorates iron plates which are constantly in direct contact with boiling water, apart from actual corrosion. It has been shown that steel wire, when exposed for a long time to boiling water, loses some of its tensile strength (about 20 per cent. in eighty-four days). The cause is probably absorption of hydrogen—hydrogen which results from decomposition of the water.

It happens sometimes that pieces of brass or copper find their way into a boiler, and then the contact of the two different metals will set up a galvanic action, by which the iron is attacked. Such contact of iron and brass or copper is not always accidental, but sometimes, for instance in some locomotives, brass is used at certain places where it may cause a galvanic action if there is no protection by scale. Altogether, it seems that the galvanic action of different metals in liquids is not always taken into sufficient consideration by practical tradesmen. Of a number of instances, the writer may be allowed to mention one, where he found a copper vacuum with iron braces inside, with the result that the sugary liquid boiled in the vacuum showed a considerable percentage of iron, the presence of which was inexplicable to the "practical" managers.

The corrosion and deterioration of boilers so far mentioned has been only such where the iron is injured when in direct contact with the water. But some waters, such which contain magnesium chloride, are liable to injure the

boiler even above the water-level, and further, even the steam pipes and cylinders. Magnesium chloride in a boiler will be decomposed to magnesia and hydrochloric acid, and the hydrochloric acid will go into the steam and corrode metal wherever the steam goes.

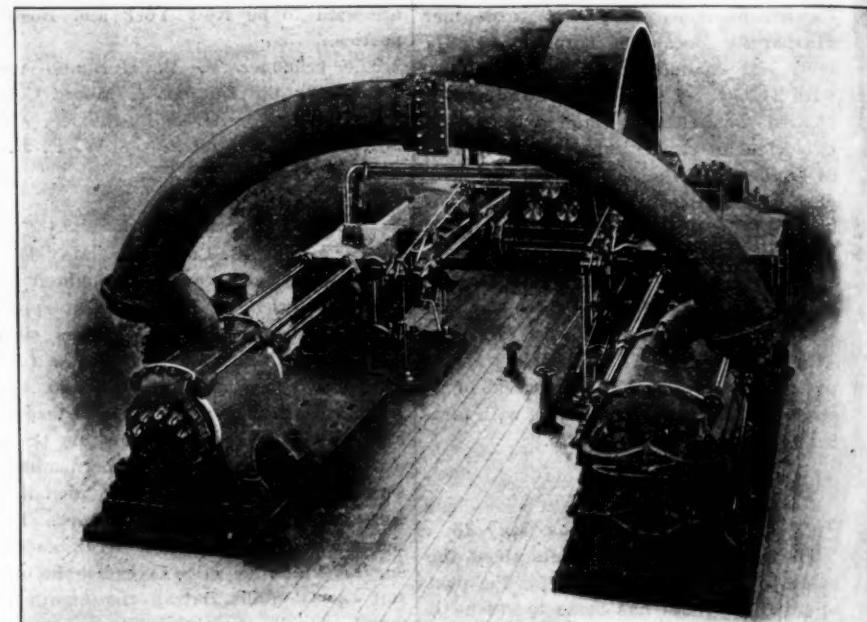
The various inconveniences which a manufacturer experiences with boiler waters are not of his own choice. The site of a factory is determined rather by a hundred other reasons than the fitness of the water for boiler purposes, and the water which can be had must be used as it is. What, then, shall a manufacturer do when he either suspects or knows that there is some trouble with the water used for his boilers. There is only one answer to this question, and that is, have the water examined by a competent chemist and let him determine what to do. The remedy which may be proposed must be based upon a satisfactory chemical analysis of the water, and it must be used in an intelligent manner, checked, if possible, by simple tests. If the trouble consists in too much hard scale, some of the substances sold as anti-scale compounds may be of value under certain circumstances. But a knowledge of their composition, an analysis of the water and the working out of proportions and rules, how to use them, is necessary in every single case. An indiscriminate use of these proprietary compounds may be worse than useless, may be injurious, and, as a rule, they are simple or cheap substances sold at a fancy price.

### Coal and Ashes Handling Machinery.

The handling of coal and ashes in power plants is a subject of much interest to all power users, and while the accompanying illustration only shows a small portion of the equipment, it will serve in some measure to show the style of Jeffrey conveyor used in the coal-conveying portion. The illustration is taken from a view of the power-house of the Edison Electric Illuminating Co.'s 12th street station, New York city. In this power station the Jeffrey Manufacturing

is a combined capacity of 500 tons. From these the coal is chuted by gravity to the boilers. The ashes drop into the ash pits, from which the same is discharged into dump cars, which, in turn, carry the ashes to a special conveyor connecting with a special ash hoist of the Jeffrey make, which discharges the ashes up and into carts which carry them away. Details of this plant can be had by addressing the Jeffrey Manufacturing

are fitted with the Corliss liberating type valve, with vacuum dash pot, and with a sensitive governor operating on the release gear, to be operated automatically from six or eight revolutions to the maximum number of revolutions per minute. The main shaft is fourteen inches in diameter by thirteen feet long, weighing about 5500 pounds. The shaft is fitted with cranks pressed on under immense pressure. Connecting-rod forgings and



COMPRESSOR ENGINE.

Co. at its New York office or the works at Columbus, Ohio.

### Largest Compressor Engine in Canada

The compressor engine shown in engraving is the largest ever put in operation in Canada, and was recently installed at the famous Le Roi mine, Rossland, B. C.

It was built by the Rand Drill Co., of 100 Broadway, New York city, at the company's Canadian shop, Sherbrooke,

piston-rod forgings are well and carefully finished.

The air end of the machine is fitted tandem with the steam cylinders and is also compound, the high-pressure air cylinder being twenty-two inches in diameter by 48-inch stroke. Valve motion supplying these cylinders is Rand's most economical type, being in the form of mechanical valves. By this means the low-pressure cylinder is insured being filled with air at atmospheric pressure. This fact, it is explained, largely affects



COAL AND ASHES HANDLING MACHINERY.

Co. has installed one of its complete coal and ashes handling plants.

The coal is delivered through the sidewalk into a weighing hopper, having a capacity of 2500 pounds, which is operated from the floor above. From the hopper the coal is taken by means of a screw conveyor to a continuous bucket elevator, which carries the coal up and into the conveyor shown in the illustration. This, in turn, delivers the coal into various pocket or storage hoppers hav-

P. Q. At the inspection it appeared to advantage, and it is described as a beautiful piece of mechanism.

On the steam end the engine is of the Corliss type, made in the form of a cross compound condensing machine. The high-pressure cylinder is twenty-two inches in diameter by 48-inch stroke, taking steam through a pipe six inches in diameter. The low-pressure cylinder on the opposite side of the machine is forty inches in diameter by 48-inch stroke. Both cylinders

the efficiency of the machine. If the cylinder is either not completely filled or the air hot and expanded, in just such a ratio would the efficiency be decreased.

Inlet valves of the low-pressure or intake air cylinder are surrounded by a hood, which is connected to a flue for the introduction of the cold air from out of doors.

Between the high and low-pressure cylinders is an inter-cooler of the latest type. Through this inter-cooler the air passes

over a system of water circulating pipes and is cooled in the process. This giant compressor engine will be used for running all the pumps and hoists at the mine, in addition to operating forty drills.

#### Improved Self-Feeding Board Trimmer

A new board trimmer, to trim stock from ten to thirty feet, is shown herewith.

give access to the knives. The range of the vertical adjustment is such that the table can be raised one-half inch or more above the cutterhead to allow great latitude in the use of molding cutters.

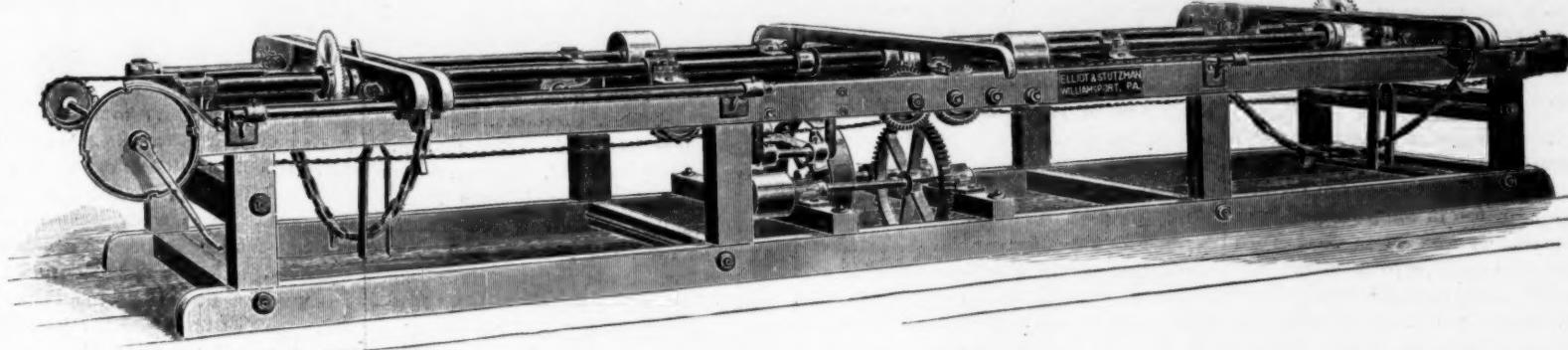
By another adjustment the tables can be set to plane slightly hollow, so that when work is glued up it will be extra tight at the ends, and less liable to open. An adjustable square and mitre gage is

made for the supply of an abundance of clear oil.

The cylindrical form of the machine makes it well adapted for direct connection, either through gears or otherwise, and the machine itself can be placed in any horizontal position, thus making it well adapted to run as a ceiling motor, or attached at any angle to an "A" frame, or it may be bolted to the bed-plate of

outer shell also forms a protection to the motor, making it especially valuable where dust, dirt or dampness are apt to occur, and, in fact, anywhere where employees are liable to be careless with reference to the motor.

On this motor none of the moving parts, except the pulley, pinion or coupling, are outside of the shell, which arrangement secures safety not only to the



IMPROVED SELF-FEEDING BOARD TRIMMER.

The machine is built heavy, to make it very durable. It has three head blocks, one stationary and two movable, mounted on rollers, to lessen friction. They are operated by one crank on the end of the machine.

The arbors are made heavy. End boxes are of an improved design, and are so arranged that the saws can be changed quickly when dull. With each machine is furnished two saws, twenty inches diameter, and necessary wrenches. Size of pulley on arbor, seven inches diameter, seven-inch face, and should run 1800 revolutions per minute.

#### New Buzz Planer and Jointer.

Embodying some improvements which practice has demonstrated as of special merit, the new buzz planer and jointer shown in the accompanying illustration is now being introduced. It is a strong, substantial machine, with a body cast in one piece, having a bed eight feet long, which is considered a great advantage.

It is adapted to jointing, beveling, squaring, smoothing, tonguing, grooving, molding and planing out of wind.

Both tables are adjustable up and down in such a manner that their edges always

provided, and a pressure piece, with finger protector, for pressing stock against the gage.

The cutterhead is provided with slots and bolts for holding molding cutters, etc., and with a scoring knife at one end to cut the end of the rabbet. An overhanging bracket is also provided to support the work while being rabbeted. The bracket is also found to aid in returning the work to front table for another cut.

These machines are made to secure a very high speed, which is essential to smooth and quick work. P. Prybil, 512 to 524 West Forty-first street, New York city, is the manufacturer.

#### New Ironclad Motor.

The motor illustrated herewith is an example of the latest type of machine brought out by the C & C Electric Co., New York city. Views are presented of the closed type and of the open type; also of the frame.

The frame consists of a soft steel shell, with radial poles projecting inward, the shell being capped at each end with a circular end-plate, through which the bearings and rocker-arm support are



NEW BUZZ PLANER AND JOINTER.

remain close to the knives, irrespective of the depth of cut to which they are set.

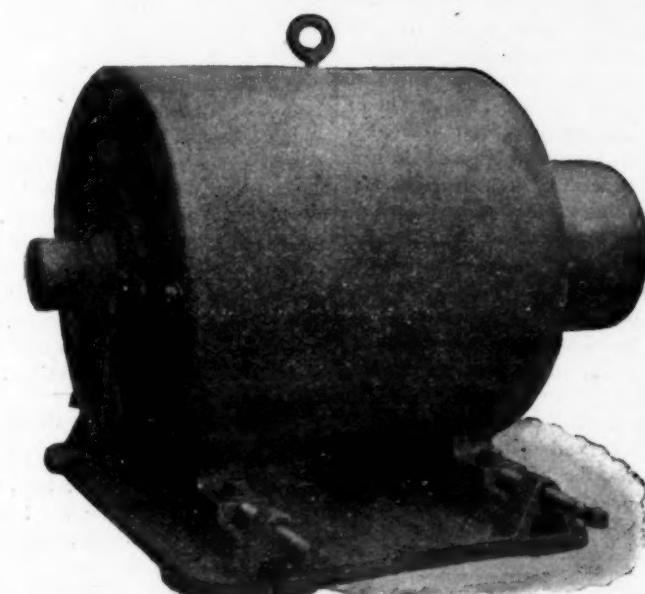
An improvement on this machine is the hand-lever as shown in cut, by which means the table can be set instantaneously to take any thickness of cut required to one-half inch, thereby saving a large amount of time and wearing of knives. Lumber having large wind or being very crooked, which sometimes requires planing three or four times before a smooth surface is obtained, can be handled on this machine by means of the lever, the table being set to take one rough cut and then set to take one finishing cut.

By an independent adjustment, both tables can also be moved back or away from the cutterhead to give room for projecting molding cutters, etc., and to

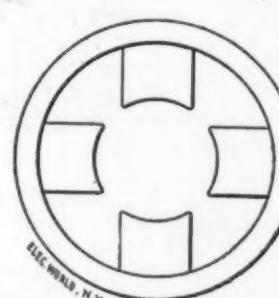
carried. The machine is of the four-pole type, and the magnet coils may be readily removed after taking out the armature, the coils being interchangeable. The armature is of the drum type, having the conductors laid in slots, the coils being wound on forms. It is built up in a thoroughly substantial and scientific manner. The commutator is of generous proportions, with ample brush surface. Reaction type brush-holders are used on this machine, which give a flexible and even pressure of the brush with minimum wear. The brush maintains a constant relative position on the commutator, thus avoiding the necessity of shifting the brushes forward when they have been shortened by wear. The shaft is of steel, rigid and of ample carrying capacity, and the bearings are self-oiling, provision be-



CLOSED TYPE.



OPEN TYPE.



THE FRAME.

any machine with which it may be combined. The magnetic field is compact, its circuits being of minimum length.

While improving on the ordinary type by providing an ironclad type of field, the

operator, but also to the armature of the machine.

The motor is guaranteed to deliver the full rated horse-power in continuous service, at pulley, pinion or coupling, and it is claimed to have an efficiency of from 85 to 92 per cent., depending on the size of the motor. The company claims for this machine a wider range of application than any other motor on the market, as it can be belted, back-gearred, direct-connected or furnished with change gears to drive at a range of speeds, and can be run in an inverted position or otherwise.

The Augusta Exchange has nominated Thomas Barrett, Jr., as president, and W. J. Craig, vice-president.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South; and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### Changes in a Great Cotton Firm.

A business change of general interest to the South is that made by the firm of the Messrs. Inman & Co., cotton factors, who have branches in the principal cities of the South, as well as in New York and Europe. According to the official announcement, the partnership of the firms of S. M. Inman & Co., of Atlanta; Inman & Co., of Houston, Texas; Inman, Sanders & Co., of Bremen, Germany, will be dissolved on September 1 by mutual consent. The good will of these firms will go by agreement to Messrs. Sanders, Swann & Co., of Atlanta, and Bremen, Germany; Inman & Co., of Augusta, Ga., and Inman & Read, of Houston, Texas. The Atlanta house, as well as the Bremen branch, will be composed of W. C. Sanders, of Atlanta; James Swann, of New York; J. W. Sanders, of Bremen; Frank M. Inman and Inman H. Sanders, of Atlanta. The Augusta house will be composed of Wm. H. Inman, of Atlanta, and J. W. Inman, of Augusta, and J. F. McGowan, of Augusta. The Houston concern will be composed of S. M. Inman, of New York, and W. M. Read, of Houston, Texas, as general partners, and Walker P. Inman, of Atlanta, and Hugh T. Inman as special partners.

By these changes Mr. Samuel M. Inman practically retires from the active control of the business. He, with the late John Inman, for many years were among the most influential cotton dealers, not only in this country, but in Europe. The firm which they organized was during many periods the most important of its kind in this country, and exerted a powerful and widespread influence in textile matters generally. The death of Mr. John Inman threw much more responsibility upon his brother, and the latter desires to be relieved of this to a certain extent, which is a reason for the change. As will be noted, Mr. James Swann, of New York, who has long been associated with the Inmans, and is one of the leading financiers of the metropolis, is still identified with the concern. It is understood that he will look after the financial portion of the affairs of Sanders, Swann & Co.

In a notice announcing the change in this firm, Mr. S. M. Inman says: "I have been contemplating for two years giving up some of the more active cares of the business done by the firm in the Atlantic States, in Texas and in Germany. The business has been a successful and profitable one, growing from a few thousand bales at first to a maximum of between 500,000 and 600,000 bales per annum, and the aggregate earnings of the past twenty years making a very large sum. A great part of this money has been spent and invested in Atlanta. I have had success enough and secured a position in the business world sufficient to satisfy a reasonable man."

### To Curtail Yarn Production.

A convention of cotton-yarn manufacturers in the South, held at Charlotte, N. C., on the 16th inst., was attended by representatives of about forty yarn mills. One of the principal questions discussed was the proposition to reduce the pro-

duction of the mills for a certain length of time for the purpose of regulating the output of Southern mills to a certain amount. As a result of the meeting, a permanent organization was effected under the title of the Southern Cotton-Spinners' Association. J. T. Anthony, of Charlotte, was elected president; A. P. Rhyne, vice-president; George B. Hiss, secretary and treasurer, and Messrs. A. A. Shuford, P. M. Brown, R. J. Stough, A. M. Price, R. S. Reinhardt, J. T. Anthony, D. R. Julian, as board of governors. It was determined to curtail the production of yarns ranging from No. 8 to No. 20, to the extent of 25 per cent. This arrangement is to be in effect for four months beginning on June 15.

The question of freight rates on cotton goods was also discussed, and the claim made that North Carolina manufacturers were compelled to pay a much larger tariff in proportion than manufacturers of other States, to the principal markets.

### Textile Notes.

The Roanoke Mills Co., of Roanoke Rapids, N. C., does not contemplate increasing the capacity of its mill before next fall or winter.

The efforts to organize a cotton-mill company at Dublin, Ga., is being pushed by Mr. J. M. Finn. It is proposed to organize on the co-operative plan, and to produce narrow-width stuffs.

The Empire Plaid Mills, at High Point, N. C., were destroyed by fire on the 5th inst. The building contained about 110 looms and some other necessary machinery, all of which was burned, causing a loss of about \$27,000. The mill has been idle for some time.

At the annual meeting of the stockholders of the American Spinning Co., of Greenville, S. C., Mr. J. H. Morgan was elected president and treasurer; Jas. L. Orr, vice-president, and W. B. Boyd, secretary. The directors are O. H. Sampson, C. E. Sampson, J. L. Orr, G. G. Wells and J. H. Morgan.

The reorganization of the Charleston Mills, of Charleston, S. C., has been about effected, and operations are expected to be resumed this month. The new company has for its president O. A. White; for secretary-treasurer, E. H. Sparkman. About \$50,000 has been expended on improvements to the mill, overhauling the machinery now installed and putting in new equipment. This is the mill previously fully noted as intending to utilize colored operatives.

### Good Hotels Pay in the South.

The annual meeting of the Savannah Hotel Co., which owns De Soto Hotel, in that city, makes public the information that the hotel has been so successful as to pay its floating debt and leave a small balance on hand. This hotel, which is one of the finest in the South, was built not so much for an investment as to attract Northern and other people to Savannah, and to advance the general welfare of the city. It is gratifying to know that the venture has succeeded very well. The directors of the company have been re-elected, and, in turn, have re-elected the present officers, who are: President and treasurer, H. M. Comer; vice-president, Jacob Rauers, and secretary, W. E. Grady.

The Commercial Club of Birmingham, Ala., has elected W. J. Milner, president, and a number of prominent business men as vice-presidents. They are F. Y. Anderson, B. Steiner, J. K. McDonald, Rufus N. Rhodes, J. Morgan Smith, J. A. Rountree, S. E. Thompson, J. A. Tucker, R. S. Munger, C. T. Rambow, J. A. Van Hoose, T. C. Thompson.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

### The Market for Cottonseed Products.

New York, N. Y., May 19.

The cottonseed-oil market has been particularly dull and featureless during the past week, without the development of transactions of any moment or sufficient to turn prices much one way or the other. Conditions, therefore, have been rather depressing in character, and quotations merely nominal. Exporters continue to hold aloof, and home traders seem equally indifferent. The anticipated demand from Western packers for prime yellow oil did not materialize, and at this writing it is rather doubtful if the lard trade will be a factor for sometime to come in the cotton-oil market. This opinion is based on the fact that prices continue to decline in the provision market as the receipts of hogs at the large market centres continue to increase. The result of these conditions is that bear influences control the provision market, and are likely to unless something unusual happens to stimulate demand at home or abroad or both. It may be noted that the promulgation by any of the countries of Continental Europe of a definite line of policy in regard to retaliatory legislation in consequence of the terms of the pending tariff bill would have the effect of pushing exports to Europe before such measures went into operation. Cotton oil is expected to have further embargoes placed against it, as well as lard, etc. The development of this feature, however, is very much tied up in the future, and will depend as much on the final character of the tariff bill as on the temper of the governments of those countries which may claim to be adversely affected by its terms. These countries are on Continental Europe, and are the ones to which this country heavily exports cotton oil, lard and oleo oil.

Tallow and oil have been in the same category as cotton oil, dull and featureless. At the close prime summer yellow was quoted from 23½ to 24 cents, with a sale of 200 barrels at the latter figure. Crude in tanks was quoted nominally at 16 cents bid and 16½ cents asked in tanks at the Atlantic coast. Three cents was top price for prime city tallow on contract.

### Cottonseed-Oil Notes.

It is stated that a cottonseed-oil-mill plant is soon to be established at Montmorenci, S. C., by local capital.

It is stated that the Laurinburg Cottonseed-oil Mill & Manufacturing Co., at Laurinburg, N. C., has declared an annual dividend of 9 per cent.

The market for cottonseed products in Texas is quiet, with stocks considerably reduced. There has been very little selling lately, and prices for oil, meal and cake are nominally steady. The following quotations of cottonseed products were posted last week in the Houston Cotton Exchange: Prime crude cottonseed oil, loose, 16 cents; refined butter oil, loose, nominal, and prime summer yellow oil, 18 cents; cake and meal f. o. b. mill interior points, \$12.50 to \$14, and cottonseed hulls, \$3 to \$4.

The collector of customs of the port of Galveston reports the foreign exports of cottonseed products from that port for the month of April as follows: Cottonseed meal and cake to Germany, 20,855,546 pounds, valued at \$168,309, and linseed-oil cake to England, 572,130 pounds, val-

ued at \$4590; cottonseed oil to England, 17,500 gallons, valued at \$4375. The total foreign shipments of cottonseed products from September 1, 1896, to May 1, 1897, amounted to 287,073,520 pounds of cottonseed meal and cake, valued at \$2,651,627, against 170,000,000 pounds for the corresponding period last year. The exports of cottonseed oil to foreign ports for the same period aggregated 62,330 barrels, against 10,283 barrels last year.

The market for cottonseed products in New Orleans last week was quiet. Prime crude oil in bulk 17 to 18 cents; prime summer yellow in barrels 22½ cents; meal and cake \$17 to \$17.25 per short ton and \$19 to \$19.25 per long ton for export. Receivers' prices were reported as follows: Cottonseed \$9 per ton (2000 pounds) delivered to the mills; cottonseed meal jobbing at depot \$17 to \$17.25 per short ton, and \$19 to \$19.25 per long ton for export f. o. b.; cottonseed oil 18 to 19 cents per gallon for strictly prime crude, in bulk 17 to 18 cents, and 22½ cents for refined oil at wholesale or for shipment; oil cake \$19 to \$19.25 per long ton f. o. b.; linters—A, 3½ cents per pound; B, 3½; C, 3¾; hulls, delivered at 15 to 20 cents per 100 pounds, according to location of the mills.

### Coal Output of the Jellico District.

The meeting of the coal operators of the Jellico district at Jellico, Tenn., last week arranged to have a joint meeting this week, at which time the miners and operators will discuss the scale of wages for the ensuing year. It is believed that an equitable settlement will be reached readily.

The Southern Jellico Coal Co., with headquarters at Knoxville, is now a thing of the past, and in its stead is the Jellico Coal Co., Limited, with headquarters at Jellico, Tenn., which will buy the entire output of the mines in the district.

The new company has for president Russell A. Clapp; James R. Wooldridge, secretary and treasurer; Robert Gayle, resident manager, and John Boyd, vice-president.

At the recent annual meetings of the industrial, financial and railroad companies interested in Roanoke, Va., and vicinity, the principal officers were re-elected for another year. These companies include the Shenandoah Valley Railway, the New River Investment Co., Pocahontas Coal Co., Virginia Mineral Railway Co., Shenandoah Furnace Co., Roanoke Land & Improvement Co., the Virginia Company and the Roanoke Gas & Water Co. The stock in these companies is largely held by Philadelphia parties, and by the syndicate interested in the Norfolk & Western Railroad.

Among the foreign exports of wood products from the port of Pensacola the following were reported: Bark Home-wood for Grimsby with 729,000 feet of sawn timber and 64,000 feet of lumber; bark Venezian for Genoa with 898 cubic feet of oak timber, 312,000 feet of sawn timber and 266,000 feet of lumber; steamship Yarrowdale for Devonport with 21,000 feet of lumber and 1,860,000 feet of sawn timber; bark Campbell for Kiel with 709,000 feet of lumber and 87,000 feet of sawn timber; bark Solid for Honfleur with 312,000 feet of lumber and 27,000 feet of sawn timber, and bark Signe for Dieppe, France, with 453,000 feet of lumber and 70,000 feet of sawn timber. The exports of forest products during the month of April, 1897, were as follows: Sawn timber 23,262,000 superficial feet, hewn timber 17,837 cubic feet and lumber 12,111,000 superficial feet.

# CONSTRUCTION DEPARTMENT.

**T**HE MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

#### ALABAMA.

Citronelle—Saw Mill.—James Zeigler, of Pennsylvania, will erect a saw mill in Citronelle.

Cleburne County—Gold Mines.—O. Cook, of Oshkosh, Wis., and associates are developing gold lands in Cleburne county, and if the ores warrant it a mill will be erected.

#### FLORIDA.

Dade City—Water Works.—Water-supply system for city service will be constructed. C. W. Furman can be addressed.

Gainesville—Insulator Factory.—The National Insulator Co., capital \$20,000, has been chartered to manufacture and sell insulators in the United States and foreign countries, and to buy and sell real estate. The incorporators are E. Renarett, J. E. Hammerly, E. W. Williams, B. F. Dillon and W. W. Hampton.

Gainesville—Woodworking Factory.—Chartered: The National Insulator Co., with capital stock of \$20,000, by J. E. Renault, E. W. Millican, B. F. Dillon and W. W. Hampton, to manufacture insulators for telegraph and telephone companies.

St. Augustine—Land Company.—Chartered: The Florida East Coast Land Co., with capital stock of \$10,000. The incorporators are H. M. Flagler, president; J. E. Ingraham, vice-president, and J. R. Parrott, secretary and treasurer.

#### GEORGIA.

Americus—Municipal Improvements.—The city may decide to issue bonds for \$30,000, to be expended on extension of sewerage system, purchase of new boiler for water works, street and bridge repairs, etc. Address the mayor for information.

Atlanta—Shingle Company.—John J. Simpson, W. A. Harper and others have incorporated the Georgia Shingle Co., with capital of \$6000.

Augusta—Electric-light Plant.—The Arlington Hotel intends to put in an electric-light and heating plant.\*

Cartersville—Lime Works.—F. Reusch, of

New Orleans, has made a bid of \$20,000 for the Ladd lime works at Cartersville. If the court confirms the sale, it is understood that a company of ample capital will be formed to operate the plant.

Dublin—Cotton Mill.—The effort to organize a cotton-mill company is being pushed by J. M. Finn. It is proposed to manufacture narrow-width stiffs, and the co-operative plan for organization of the company is proposed.

Eatonton—Electric Plant.—It is proposed to organize the Eatonton Electric Co., with capital of \$7000, for erecting a power plant.

Savannah—Manufacturing Company.—John P. Daly has organized the Daly-O'Brien Manufacturing Co., to engage in the manufacture of novelties.

Waycross—Guano Factory and Oil Mill.—It is proposed to form a \$50,000 stock company to erect a cottonseed-oil mill and a guano factory in Waycross. H. C. Burr, of Griffin, Ga., is said to be interested.

#### KENTUCKY.

Carter City—Planing Mill.—W. J. Fell will erect a planing mill; machinery has been purchased.

Denton—Coal Mines.—The Straight Creek Coal Co. is opening new mines.

#### LOUISIANA.

New Orleans—Loading Company, etc.—The Peters Steam Loading & Unloading Co., Limited, capital stock \$5000, has been incorporated, with Henry Peters, president; purpose, to unload and load cars, steamboats, etc.

New Orleans—Sash and Door Factory.—J. E. Billington, John B. Schroeder, Bernard Massman, Jos. A. Dingemann and others have incorporated the J. D. Schroeder Manufacturing Co., Limited, capital stock \$15,000, to manufacture sash, doors, etc.

#### MARYLAND.

Baltimore—Packing Company.—The F. J. Chapman Co. has been incorporated, with a capital stock of \$5000, by Frank J. Chapman, John Dixon, William B. Burroughs, Alexander B. Bulack and Charles J. Norris.

Baltimore—Cement Works.—The Maryland Cement Co., capital stock \$50,000, has been incorporated by John L. Given, of Tompkins Grove, N. Y.; Edward H. Wales, of Hyde Park, N. Y., and Frank H. Sloan, Benton G. Boileau and William G. Soldan, of Baltimore. The company will manufacture cement.

Baltimore—Novelty Works.—The Faultless Roller Brake Co. has been incorporated by Benjamin Sternheimer, William H. Weil, Louis Kraus, Wallace Robb and David H. Hayne, with a capital stock of \$10,000. The company will manufacture bicycle novelties.

Ellicott City—Water Works.—James H. Gaither has received city franchise for construction of water works.

Garrett County—Coal Mines, etc.—James W. Hair, of Fairmont, W. Va., representing J. M. Guffy and others, of Pittsburgh, has purchased 2000 acres of coal land in Garrett county, Md., adjoining a tract of 3200 acres in Preston county, W. Va., purchased for the same parties a few months ago. These purchases are preliminary to the building of a coal-developing railroad, which will cut through untouched territory. These lands also include territory which Guffy & Co. propose to test for oil.

Havre de Grace—Power Plant, etc.—Charter granted to the Havre de Grace Real Estate & Power Co., of Harford county, with Messrs. A. P. McCombs, W. S. McCombs, Robert K. Vanneman, Stephen J. Seneca and Mrs. Annie E. Seneca as incorporators. The capital stock is \$20,000 and purpose to deal in real estate, to furnish heat, light and power, engage in shipbuilding, etc.

Washington, D. C.—Electric-light Plant.—The United States Electric Lighting Co. will soon commence work on its new electric-light plant, previously reported. About \$300,000 will be expended.

Westminster—Shirt Factory.—J. Eiseman, of Strauss & Co., of Baltimore, Md., contemplates the establishment of a shirt factory at Westminster. The indications are that definite arrangements will be made for locating the enterprise.

#### MISSISSIPPI.

Columbus—Railroad Shops.—It is reported that the Mobile & Ohio Railroad will locate

shops in Columbus; E. A. Russell, vice-president, Mobile, Ala.

Greenville—Planting Company.—Robert T. Watson, Lamar Watson and others have incorporated the Southern Planting & Improvement Co., with a capital stock of \$25,000, to cultivate plantations, etc.

Greenwood—Water Works.—Marey & Wright have franchise, as previously stated, for the operation of water works in the city. Efforts will be made to arrange in the near future for the construction of the system, but at present nothing further has been done than to obtain the 25-year franchise. Sanders & Porter, of Louisville, Ky., will make surveys and prepare plans and specifications.

Meridian—Telephone System.—The Young Men's Business League has about concluded a contract with V. L. Terrell, of Jackson, Miss., to establish in Meridian the telephone system mentioned last week.

Meridian—Telephone System.—The Young Men's Business League is negotiating for the establishment of a telephone system.

Natchez—Mercantile.—Stephen B. Forman and others have incorporated the Natchez Grocery Co.; capital stock \$15,000.

#### MISSOURI.

Blendsville—Zinc Mines, etc.—E. O. Bartlett, of Joplin, Mo., has leased a tract of zinc land near Blendsville, and intends to develop thoroughly; machinery will be installed and a mill erected.

Carthage—Lead and Zinc Mines.—D. S. Miller, W. S. Crane and James Luke have leased lead and zinc lands, and intend to open mines.

Joplin—Zinc Mines.—The Big Six Mining Co. has been recently organized and a lease secured on a 120-acre tract of land. The members of the company are J. W. Allen, J. J. Graham, John A. Campbell, C. W. McAbey, J. F. Cowan and a party residing in the East. It is the intention to thoroughly prospect the ground with steam drills, and one hole is now down to a depth of 120 feet.

Joplin—Smelting Plant.—It is reported that E. O. Bartlett will erect a plant for smelting zinc.

Kansas City—Trading.—Chartered: The Interstate Trading Co., capital stock \$2000; incorporators, George H. Ruddy, Henry N. Cook and Jerome Gorin.

Kansas City—Ice Company.—Chartered: The Grand Avenue Ice Co., capital stock \$70,000; incorporators, W. R. Brown, N. H. Cook, Charles R. Pence and others.

Sedalia—Brewery.—Frank O. Moerschel and F. D. Hoefer, of St. Louis, will build a brewery in Sedalia. The main building will be four stories high, 73x58 feet, with brew and washhouse three stories, both costing about \$50,000. The machinery to be installed will give an annual capacity of 15,000 barrels.

Springfield—Lead Deposits.—A report states that J. C. Wolf has discovered a rich deposit of lead near Springfield.

St. Louis—Tire Company.—The Vandegrift Tire Co., of St. Louis, capital stock \$100,000, has been incorporated by John McCargo, Charles Doffee and A. G. Enderle.

St. Louis—Quarrying.—J. F. Mueller, F. A. Tubbs and R. J. Morrison have incorporated the Carthage Consolidated Quarry Co., with capital stock of \$6000.

St. Louis—Molding Company.—H. J. Schwartz and others have incorporated the Schwartzer Molding Co., with capital stock of \$4500.

Webb City—Mining.—The Ten Strike Mining Co., capital stock \$3000, has been incorporated by T. N. Davey, Wm. Stealey and L. J. Berry.

#### NORTH CAROLINA.

Charlotte—Gold Mine.—Henry Grose and F. A. Kneaves have leased and will develop an old mine near Charlotte. Moore & Adick, of Yorkville, S. C., own the mine.

Dillsboro—Corundum Mines.—The Turkey Knob Corundum Co. intends to develop thoroughly its corundum properties in Jackson county, about twelve miles from Dillsboro. The company's capital stock is \$100,000, and a number of parties are interested, including R. B. S. Power and Henry C. Turnbull, Jr., of Baltimore. A plant for crushing, rolling and screening corundum, etc., will be wanted. Address the company, at 5 E. Lexington street, Baltimore, Md.\*

Knottsville—Gold Mines.—The Lawrence

Mining Co. is pushing developments at its gold mine; will put in new machinery and increase working force.

Mt. Airy—Water Works and Electric-light Plant.—The city having disposed of its water-works and electric-light bonds, will now proceed to arrange for awarding contracts for construction of the plants. About \$25,000 will be expended. Address the mayor.

Roanoke Rapids—Knitting Mill.—The Roanoke Mills Co. does not contemplate increasing the capacity of its mill before next fall or winter.

#### SOUTH CAROLINA.

Bennettsville—Telephone System.—The Bennettsville Telephone Co., noted last week, has fully organized, and will at once establish a system of 100 'phones. Knox Livingstone is president, and H. H. Newton, Jr., manager; capital is \$2000.

Charleston—Piano Factory.—Dustonsmith & Cody have established a piano factory at 161 and 163 Meeting street. The instruments will be made entirely by hand and an order for twenty is now on file. Mr. Dustonsmith was formerly in the piano manufacturing business at Plattsburg, N. Y., and owns a number of patents pertaining to these instruments.

Montmorenci—Oil Mill.—It is reported that a cottonseed-oil mill will be erected. G. L. Toole can possibly give information as to those interested.

Newberry—Manufacturing.—Charter granted to the Carolina Manufacturing Co., with H. A. Carlisle and others as incorporators.

#### TENNESSEE.

Campbell County—Coal, Iron and Timber Lands.—The Lafayette Coal & Iron Co. has sold its 40,000 acres of valuable timber, coal and iron lands in Campbell county, Tenn., to Robert P. Clapp, of Benton, Tenn., at \$725,000. The property, hereafter to be known as the Cumberland Coal & Iron Co., is to be at once extensively improved. The board of management, including wealthy Boston capitalists, will begin the development immediately. A railroad is soon to connect the property with the Southern Railway.

Chattanooga—Oil Company.—W. D. Roberts and others have incorporated the Roberts Cotton Oil Co.

Chattanooga—Knitting Mill, etc.—The Young Men's Business League is negotiating for the establishment of a desk and seat-manufacturing plant to be removed from North Carolina, and for the establishment of a large knitting mill to be removed from Pennsylvania.

Jellico—Telephone Lines.—The construction of telephone system is contemplated. Possibly the mayor can give information of this enterprise.

Johnson City—Stave Factory.—J. A. Wilson has purchased the interest of John W. Boring in the stave factory of Boring & Wilson. The new owner will continue operating the mill.

Jonesboro—Electric-light Company.—The Jonesboro Electric Light Co. has been incorporated by R. F. Wells, A. S. Deaderick, R. A. May and others.

Nashville—Mercantile.—W. P. Hickman and others have incorporated the Hickman Grocery Co.

#### TEXAS.

Casco—Telephone Company.—The Merchants' Telephone Co., capital stock \$1100, has been incorporated by S. P. Butler, John Hokemeyer, Martin I. Filla and others.

Clarendon—Townsite Company.—Chartered: The Panhandle Townsite Co., capital stock \$90,000, by George Anderson, of Willbarger county; J. M. Campbell, of Donley county; J. F. Swayne, of Tarrant county, and W. S. Decker, of Chicago.

Cleburne—Railroad Shops.—It is currently reported that the Gulf, Colorado & Santa Fe Railroad has definitely decided to remove its Waco shops to Cleburne. The shops have a pay-roll of about \$75,000 monthly. L. J. Polk, manager, Galveston, can be addressed.

Fort Worth—Railway Construction.—Chartered: The Carey Construction Co., of Fort Worth, capital stock \$20,000; purpose, the construction of railroads and bridges for railroad companies and the doing of general construction work. Incorporators: Dan Carey, N. Harding and W. E. Kaufman.

Galveston—Mining Company.—The Avantura Mining Co. has been chartered by

Walter S. Davis, B. Adoue, John Sealy and Waters Davis, Jr., of Galveston, and Britton Davis, of El Paso; capital stock \$150,000.

Houston.—The Dickson Car Wheel Co. has amended charter, increasing the capital stock from \$75,000 to \$150,000.

Jefferson—Drug Company.—Chartered: The J. T. Crow Drug Co., capital stock \$5000; incorporators, J. F. Crow, Allen Urquhart and B. F. Rogers.

Lampasas—Bridge.—Chartered: The Colorado Bridge Co., capital stock \$10,000; purpose, the construction and maintenance of a bridge across the Colorado river between the counties of Lampasas and San Saba, at a point near what is known as the Cowell crossing, in McAnelly bend. Incorporators: A. B. Light, D. C. Thomas and J. P. Word, of Lampasas.

Marshall—Railroad Shops.—The Texas & Pacific Railroad Co. is preparing to make improvements to its Marshall shops; will erect new brick building, etc.; L. S. Thorne, manager, Dallas, Texas.

Midland—Mining.—Incorporated: La Cumbe Mining Co., capital stock \$25,000; incorporators, Z. T. Brown, Francis Divers, L. T. Wilson, S. H. Cowan.

Nacogdoches—Telephone Lines.—Chartered: The Nacogdoches & San Augustine Telephone Co., capital stock \$2000, by E. A. Blount, R. C. Shindler, J. M. Weeks, S. W. Blount and G. H. King.

Sherman—Mercantile.—Chartered: The Roberts, Hardwicke & Taylor Co., capital stock \$100,000, by C. N. Roberts, Geo. E. Hardwicke and W. L. Sanford.

Tyler—Foundry, etc.—Chartered: The Tyler Foundry & Machine Co., capital stock \$10,000; incorporators, J. S. Christian, Claude R. Ward and Clem H. Roberts.

#### VIRGINIA.

Basic City—Iron Works.—J. S. Runciman has leased the Basic Chilled Roll and Iron Works, and will operate same.

Danville—Box Factory.—Noell & Woodward will rebuild at once their burned tobacco-box factory.

Glasgow—Tobacco Factory.—The tobacco factory, reported last week, is now in operation. The firm is known as the Rockbridge Tobacco Co.; G. W. Jones, manager.

Lawrenceville—Flour and Meal Mill.—R. Turnbull and associates contemplate the erection of flour and meal mills.\*

Patrick County—Gold Mines.—William S. Floyd, of Baltimore, Md., has found valuable gold deposits on his property of 1330 acres of land in Patrick county, and has engaged the services of Wm. C. Schley, an experienced gold-miner from the Pacific slope, to investigate the property. It is supposed that arrangements will be made in the future for developments. Further particulars of the find will be reported in a week or two.

Roanoke—Cress Cultivation.—The Virginia Cress Co. has been chartered, with Joseph C. Moomaw, president, and C. A. Moomaw, secretary and treasurer. The business of the corporation is to cultivate and sell water-cress.

Unionville—Gold Mines.—The Riga Creek Gold Mining Co. has been incorporated, with E. C. Rosenzil, of Philadelphia, Pa., as president, for the purpose of developing gold deposits on the farm of L. L. Coleman, near Unionville. Other lands said to contain gold deposits have also been purchased and will be developed.

#### WEST VIRGINIA.

Buckhannon—Medicine Factory.—Charter has been issued to the Mountain State Medicine Co., with an authorized capital of \$100,000. The incorporators are: John T. Huff, J. G. Hall, L. A. Hall, A. I. Boreman, G. K. Gay, William S. O'Brien, C. C. Higginbotham, C. W. Heavner, P. M. Boggess and L. B. Chidester.

Conoway—Telephone Lines.—Chartered: The Bell Short Line Telephone Co., with capital stock \$850, by J. N. Lazear and others.

Fairmont—Gas and Oil Wells.—Chartered: The Pillsbury & Fairmont Oil & Gas Co., with capital stock \$70,000, by John C. Gould and others.

Fairmont—Sewerage.—Incorporated: The Fairmont Sewerage & Drainage Co., with purpose of digging drains and sewers in and for the county of Marion. The incorporators are George O. Bolt, Walton Miller, A. D. Helmick and others.

Harper's Ferry—Oil Wells.—The movement to drill for oil in the vicinity of Harper's Ferry, recently referred to, will result in the formation of a stock company, which will lease 4000 acres of land between Harper's Ferry and Martinsburg for development. Chas. H. Trail can be addressed for information.

Kenova—Mercantile.—Chartered: The Wm. H. Jones Co., with an authorized capital stock of \$50,000. The incorporators are Jas. Kelley, Wm. B. McClellan, Wm. B. Mansfield, Wm. Rapp and Wm. H. Jones, all of Kenova, W. Va.

Madison—Telephone Lines.—Chartered: The Boone & Kanawha Telephone Co., which proposes to construct and operate telephone lines to connect all of the important towns in Kanawha, Boone, Lincoln, Logan, Raleigh and Wyoming counties. The incorporators are J. R. Atkins, H. Lon Carter, S. M. Croft, J. E. Bradley, F. C. Leftwich and John B. Hager, of Madison; J. D. Price, J. F. Price, J. Price and C. H. Price, of Hill, and Lilian Fulton, of Danville.

Philippi—Coal Mines.—The Philippi Coal Mining Co., reported last week as incorporated, has purchased the Hall Coal Co. and its properties, and will own in addition 4500 acres of coal, making a total acreage of about 5000 acres. The intention is to work the mines to a production daily of 1000 tons. Latest-improved equipments will be installed. Jas. E. Hall, C. F. Teter and A. G. Dayton, of Philippi, are interested in the company; also Philadelphia parties.

Point Pleasant—Brick and Tile Works.—The Mountain State Brick and Tile Works, with an authorized capital of \$100,000, has been chartered by Joseph Hein, C. F. Hess, James F. Neighbors, Henry Keisel and Josephine Hess.

Wellsburg—Gas and Oil Wells.—George Given proposes the formation of a joint stock company for the development of oil and gas properties.

Wheeling—Gas and Oil Company.—The Cotton Town Oil & Gas Co., with an authorized capital of \$10,000, has been incorporated by Solomon Krauss, Fred. H. Hanke, Henry Sonneborn, Jacob Dahinden, George Maxon, of Cleveland, O., and John Hamilton, of Loraine, O.

Wheeling—Stamping Works, etc.—George Woods, representing Wheeling parties, and Paul Bros., of Wellsburg, W. Va., have purchased the plant of the Nail City Stamping Co., at Wheeling, and will reorganize the company, with a capital of \$25,000, and continue operations of the plant.

#### BURNED.

Cecil, Ga.—J. N. Bray & Co.'s dry-kilns.

Chattanooga, Tenn.—The Hughes Manufacturing Co.'s planing mill; damaged by fire; loss about \$8000.

High Point, N. C.—The Empire Plaid Mills; loss \$27,000.

Lexington, Ky.—Courthouse; loss about \$100,000.

Richwood, Ga.—The Parrott Lumber Co.'s mills; loss \$50,000.

Tallahassee, Fla.—Bradford Bros.'s saw mill, near Tallahassee.

Webb City, Mo.—The Chatham Mining Co.'s concentrating mill; loss \$3500.

#### BUILDING NOTES.

Americus, Ga.—Dwellings.—Johnson & Harrold will erect several dwellings.

Atlanta, Ga.—Storehouse.—Joseph Acker will erect a 50x75-foot store building, to cost \$2500.

Atlanta, Ga.—Apartment-house.—Samuel Barnett and Miss Susie Harwood are arranging for the immediate erection of a \$75,000 building. The structure is to be used as an apartment-house, to be eight stories high, frontage of 100 feet, depth of 55 feet, have heating apparatus, elevator machinery, elevators, steam heating plant, electric and gas fixtures, bathrooms, Turkish-bath equipment, etc., etc. Plans prepared by W. F. Denny, who will have charge of letting contract. It is reported that contract has been about awarded.

Baltimore, Md.—Business Building.—M. Hochschild & Co. have awarded contract for erection of a five-story brick business building after plans by Joseph E. Sperry.

Baltimore, Md.—School.—Contract awarded to Henry Smith & Son at \$48,500 for erection of new schoolhouse.

Baltimore, Md.—Dwellings.—Randolph Forrester will build twenty two-story brick dwellings and six two-story brick dwellings. A. Weifeld will erect six two-story brick buildings. A. S. Patter has permits for the erection of four three-story brick dwellings. Joseph H. Pents will build eleven two-story brick dwellings and nine two-story brick and stone dwellings. James B. Yeatman will erect thirty-eight two-story brick dwellings. John H. Powers, Jr., will erect thirty-two two-story dwellings.

Birmingham, Ala.—Business Building.—

Nabers, Morrow & Sennige have asked bids on a five-story brick business building.

Clarksville, Ga.—Courthouse.—Plans by Andrew J. Bryan & Co., of Atlanta, have been accepted for the new courthouse, to cost \$20,000. Notice to contractors for bids will be published soon.

Coopertown, Md.—Church.—Wiley & Anderson, Shawsville, Md., have contracted for the erection of a new church at \$7200. This contract does not include excavating, delivery of material, sash, glass, etc., which will cost an additional \$5000.

Dillwyn, Va.—Warehouse.—A \$10,000 stock company will be organized to build a tobacco warehouse, as recently referred to. H. M. White, of Dillwyn, Va.; Edw. Moon, of Lynchburg, Va., and others are interested.

Fort Smith, Ark.—Depot.—The St. Louis & San Francisco Railroad will build a depot at Fort Smith after plans by A. J. Armstrong, of Galveston, Texas; building to be 212 feet long by 46 feet wide; a 30x300 freight-house will also be built; F. M. Bissell, superintendent buildings, Springfield, Mo.

Franklin, Tenn.—Hotel.—Mrs. Burke Bond, of Spring Hill, Tenn., has awarded contract to Henderson & Fisher, of Franklin, for the erection of a \$10,000 hotel building in Franklin; structure to be two stories, of brick, 100x82 feet.

Gaffney, S. C.—Hotel.—A company has been formed to build a hotel to cost \$25,000.

Knoxville, Tenn.—Business Building.—Frank McNulty has awarded contract to Cooley Bros. and J. F. Scott for the erection of his proposed \$20,000 one-story business building.

Lexington, Ky.—Courthouse.—The fiscal court has under consideration the erection of a courthouse to replace one burned last week; a \$500,000 structure is contemplated. Address the county clerk.

Luverne, Ala.—Courthouse.—Contract has been let to Arnold Hugger & Co., of Brewton, Ala., at \$14,880, for the erection of the courthouse.

McKinney, Texas—Church.—Sealed bids will be received at office of J. E. Flanders, 352 Jackson street, Dallas, Texas, and at office in McKinney, Texas, until 12 M., May 27, for the erection and completion of the First Christian Church building, in the city of McKinney, according to plans and specifications, copies of which can be seen in respective offices. Successful bidder will be required to give bond of 25 per cent. of contract price for performance of contract. Undersigned reserve right to reject bids; I. D. Newsome & Sons.

New Orleans, La.—Dwellings.—Louis Alcardi will erect \$1600 dwelling; Mrs. Elizabeth McCaffrey will erect \$1200 cottage.

New Orleans, La.—Hotel.—Thomas Nicholson & Sons, of Chicago, have received contract at \$71,639 for the erection of the addition to the St. Charles Hotel.

New Orleans, La.—Dwelling.—George Koppe will erect a \$3320 dwelling.

Norfolk, Va.—Office Building.—It is probable that a company will be formed to erect an office building at Granby and Plume streets, 200x213 feet; structure to be six stories high, fireproof, have modern equipments throughout. Further information will be announced later on if negotiations are completed.

Norfolk, Va.—Office Building.—Estimates wanted until June 7 for the erection of a seven-story fire-proof bank and office building for the Citizens' Bank of Norfolk. Information may be obtained of Charles E. Cassell, architect, Law Building, Baltimore, Md.

Parkersburg, W. Va.—Hotel.—It is reported that J. K. Durr, of Pittsburgh, Pa., will build a hotel in Parkersburg.

Parkersburg, W. Va.—Hotel.—Chartered: The New Dominion Building Co., with an authorized capital of \$50,000, for purpose of building and operating a hotel. The incorporators are J. W. Lease, H. H. Moss, J. W. Dudley, S. F. Shaw and H. P. Camden, all of Parkersburg, W. Va. This project is doubtless identical with the other hotel project noted herein, in which Pennsylvania parties are interested.

Raleigh, N. C.—Clubhouse.—Sealed proposals for the erection of the Capital Clubhouse will be received until June 1. Plans and specifications can be seen by applying to J. A. Mahler, secretary of building committee. The committee reserves right to reject bids; D. E. Everitt, chairman building committee.

Sistersville, W. Va.—Temple.—Chartered: The Masonic Temple Association, for the purpose of erecting a Masonic temple. The capital stock is \$4500, with E. A. Durham and others as incorporators.

Victoria, Texas—Business Building.—Contract has been awarded to Bailey-Mills Co. at about \$5000 for the erection of a business building for the Victoria Furniture Co.

Washington, D. C.—Dwellings.—Building permits issued: James H. Leonhardt, two-story frame dwelling to cost \$1300; O. R. Jones, nine two-story brick dwellings to cost \$18,000; W. R. Simpson, two-story frame dwelling to cost \$2500; Metropolitan Railroad Co., one-story boiler-house and engine-room to cost \$20,000.

Washington, D. C.—Dwellings.—John C. Parker will erect a \$3500 dwelling; D. B. Gottwals, a \$6000 dwelling.

Washington, D. C.—Dwellings.—Building permits issued: W. Danenhower, 729 to 733 Fifth street S. E., three two-story brick dwellings to cost \$5000; George W. Boyd, 119 Second street N. E., four-story brick store and dwelling to cost \$5000; P. Shugrue, 1942 Fourteenth street N. W., general repairs to brick building to cost \$2000.

Washington, D. C.—Dwellings, etc.—Alterations are to be made in the interior of Woodward & Lothrop's establishment; plans have been prepared by James G. Hill, and include provision for two new elevators. Plans for a store and dwelling to be erected by L. F. Flemmer have been prepared by E. Woltz. A contract for the erection of four dwellings has been awarded to John S. Nolan; according to the plans prepared by George S. Cooper, architect, the houses will be three stories in height and English basement in design. Plans for the erection of a residence for C. W. Slamm, United States navy, to be erected at 1626 Seventeenth street, have been prepared by Hornblower & Marshall, architects.

#### RAILROAD CONSTRUCTION.

##### Railways.

Ashdown, Ark.—The Ashdown & Choctaw Railroad has been built from Ashdown, where it connects with the Kansas City, Pittsburg & Gulf system to Arden, ten miles distant. It is understood that the Central Coal & Coke Co. is interested in the enterprise.

Athens, Texas.—An effort is being made by the business men of Athens to have the Texas Trunk Railroad line extended from its present terminus to Athens. J. T. Atkins, at Dallas, Texas, is receiver of the road.

Baltimore, Md.—It is reported that the Philadelphia, Wilmington & Baltimore division of the Pennsylvania Railroad will construct a branch about two miles long from Elkton, Md., to Iron Hill, Md. W. H. Brown, of Philadelphia, Pa., is chief engineer.

Bear Spring, Tenn.—Charles Seymour, engineer of the proposed line from Bear Spring to Tennessee Ridge, on the Louisville & Nashville, advises the Manufacturers' Record that this road is to be completed by October 31. Its total length will be fourteen miles, and contracts for the grading have been let. J. H. Lory, manager of the Cumberland Land Co., is the principal promoter of the line.

Bowling Green, Ky.—The project of building a railway from Bowling Green to a connection with the Illinois Central system at Litchfield, Ky., is to be revived, and it is reported that construction work will begin in the near future. W. R. Vaughan is one of the principal promoters.

Chattanooga, Tenn.—The last report in connection with the Chattanooga Southern Railroad is that arrangements are now being made to extend it from Gadston, Ala., its present terminus, to Montgomery. This would make the total length of the line about 215 miles. M. F. Bonzano, of Chattanooga, Tenn., is general manager.

Fort Myers, Fla.—It is announced that the Plant Railway & Steamship Co. has let the contract for extending its road to Fort Myers, and that the work is to be begun within the next few months. B. Dunham, of Savannah, Ga., is general manager.

Gainesville, Texas.—Arrangements are being made to complete the proposed survey of the Gainesville, McAlester & St. Louis Railroad from Gainesville to Fort Smith, Ark.

Galveston, Texas.—The proposed railroad from Galveston to Bay City will be promoted by a company chartered under the title of the Galveston, Brazos & Southwestern Railroad Co., with \$100,000 capital. W. Fickett and L. P. Featherstone, general manager of the Gulf & Interstate Railroad, are among the incorporators. The charter provides for a railroad to be built through Galveston, Brazoria, Matagorda and Jackson counties.

Hearne, Texas.—Work has begun upon the Gulf & Brazos Valley road, surveyed along the Brazos river valley. Jeff. D. Reagan, at Hearne, Texas, is chief engineer.

Jasper, Texas.—It is reported that the business men of Jasper are considering the idea of building a railroad line from Jasper to Kirbyville, Texas, where a connection will be made with the Gulf, Beaumont & Kansas City road. E. I. Kelly is one of the promoters of the scheme.

Kansas City, Mo.—It is stated that the Kansas City, Pittsburg & Gulf Company expects to have its railroad completed to Port Arthur about June 10, and to have trains running in operation between Lake Charles, La., and Kansas City and Omaha, Neb., by August 1.

LaFollette, Tenn.—It is announced that the Tennessee Northern Railway Co. has absorbed the interest of the LaFollette Coal & Iron Co., in Campbell county, and that the railroad now under construction to this property is to be completed at once. Alfred A. Glasier, of Boston, is president. H. M. LaFollette, of LaFollette, is one of the directors.

Lumberton, Miss.—It is announced that contracts have been closed to complete the Columbia, Lumberton & Gulf road to a connection with the Gulf & Ship Island Railroad. J. J. White has been re-elected president of the company.

Newberry, S. C.—Hon. George Johnstone, a director of the company promoting the railroad between Newberry and Augusta, Ga., advises the Manufacturers' Record that its length will be about sixty miles. There is a possibility, however, of extending it to Whitmire, which will make its total length about eighty miles. At Whitmire a connection would be made with the Georgia, Carolina & Northern division of the Seaboard Air Line.

Richmond, Va.—It is reported that the Southern Railway Co. has made a survey for a cut-off line in Orange county, which will be used by its through-train service. The object of the proposed cut-off is to avoid several curves and grades on this portion of the system. Frank S. Gannon, 1300 Pennsylvania avenue, Washington, D. C., is vice-president and general manager.

Washington, D. C.—It is reported that Washington, Woodside & Forest Glen Railroad Co. has made arrangements to construct an electric road in the suburbs from the line of the District of Columbia to a point in what is known as Forest Glen. The road will be about three miles long.

Waycross, Ga.—A special survey is being made over the route for the proposed extension of the Waycross Air Line from Nicholls, Ga., its present terminus, to Fitzgerald. The distance is about thirty-six miles. B. A. Denmark, at Savannah, Ga., is president.

#### Street Railways.

Atlanta, Ga.—It is reported that the Consolidated Street Railway Co. may extend its line about two miles into the suburbs. Joel Hurt is president.

New Orleans, La.—The Orleans Street Railway Co. is considering the proposed extension of its electric system in the suburbs. A. Brittin is president.

Washington, D. C.—The company interested in building the electric line to Woodside and Forest Glen includes Horace S. Cummings and Charles P. Williams. The latter is manager of the Brightwood Electric Railroad Co., and it is understood will award the necessary contracts for construction. It is reported that bonds to the extent of \$40,000 will be issued to finance the road, which will be three miles long.

#### Machinery, Proposals and Supplies Wanted.

**Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.**

Belting.—The Collins Co., Pennsboro, W. Va., is in the market for leather belting.

Boiler.—See "Water Works."

Boiler.—The Southeastern Plaster Co.,

Box 224, Savannah, Ga., wants a second-hand upright coal-burning boiler.

Boiler and Engine.—Godwin & McCormick, Eufaula, Ala., will be in the market for a boiler and engine.

Boiler and Engine.—The Virginia Soapstone Co., Schuyler, Va., is in the market for a 10 to 12-horse-power portable boiler and engine combined.

Boilers.—See "Electric-light Engine."

Boilers, Boiler-house, etc.—Sealed proposals will be received until 31st of May for furnishing all the materials and labor required for erecting in place complete the boiler-house extension, boilers, piping, etc., for the West Virginia Hospital for the Insane, at Weston, W. Va., in accordance with the plans, specifications, etc., copies of which may be seen at this office and at the office of Bartlett, Hayward & Co., Baltimore, Md. Proposals must be inclosed in envelopes, sealed and marked "Proposals for Hothouse and Heating Apparatus," addressed to W. P. Crumbacker, M. D., superintendent Hospital for the Insane, Weston, W. Va.

Heating Apparatus and Hothouse Equipment.—Sealed proposals will be received until 31st of May for furnishing all the materials and labor required for erecting in place complete the hothouse and its heating apparatus for the West Virginia Hospital for the Insane, at Weston, W. Va., in accordance with the plans, specifications, etc., copies of which may be seen at this office and at the office of Bartlett, Hayward & Co., Baltimore, Md. Proposals must be inclosed in envelopes, sealed and marked "Proposals for Hothouse and Heating Apparatus," addressed to W. P. Crumbacker, M. D., superintendent Hospital for the Insane, Weston, W. Va.

Heating Plant.—The Arlington Hotel, Augusta, Ga., is ready to contract with manufacturers of heating plants.

Laundry Equipment, etc.—Sealed proposals will be received until 31st of May for

furnishing all the materials and labor required for erecting in place complete the laundry apparatus, etc., class A; plumbing, etc., class B; heating apparatus, etc., class C; laundry machinery, etc., class D, for the West Virginia Hospital for the Insane, in accordance with the plans and specifications, etc., copies of which may be seen at this office and at the office of Bartlett, Hayward & Co., Baltimore, Md. Proposals must be inclosed in envelopes, sealed and marked "Proposals for Laundry Work, Class A, B or C," according to the classes bid upon, and addressed to W. P. Crumbacker, superintendent Hospital for the Insane, Weston, W. Va.

Laundry Machinery.—S. Samuels & Co., Marlin, Texas, are in the market for laundry machinery.

Machine Tools.—A. L. Monnot, Jeanette, La., wants to buy a second-hand 18-inch (or larger) crank-shaper; one small boring bar, with movable head and automatic feeder, to bore out small pumps, etc.; one 15-inch Cushman combination, universal or independent, four-jaw lathe chuck; one set Le Count's steel dogs, to take one to six inches; all above to be good second-hand.

Building Materials.—The Piedmont Insurance Co., J. W. Millar, chairman building committee, Charlotte, N. C., is in the market for pressed brick, terra-cotta and granite trimmings, etc., for a \$25,000 building.

Confectionery-store Equipment.—N. C. Aaron, 130 W. Fourteenth street, Winston, N. C., wants estimates on outfit for cigar store, ice-cream parlor, confectionery, etc., including showcases, soda-water fountains, freezers, etc.

Crushing and Screening Equipment, etc.—See "Mining Equipment," below.

Derricks.—Proposals will be received until Monday, May 24, at the office of the chief engineer of the water department, in the City Hall, Baltimore, Md., for six derricks, to be made according to plans furnished by the water department. Plans and specifications may be obtained by application to the office of the chief engineer. All proposals must contain a certified check for \$200, made payable to the water board of Baltimore city. The board reserves right to reject any or all bids; Nicholas S. Hill, Jr., chief engineer.

Diamond Drills.—H. F., Box 565, Richmond, Va., wants to buy a second-hand diamond drill, small size, for hand power. Address with full particulars.

Electric-light Engine.—John T. Smith, civil engineer, Austin, Texas, wants prices on a 150-horse-power self-contained electric-light engine, f. o. b. factory, and delivered at Brownsville, Texas. Also wants prices on two 10-horse-power boilers complete for same city.

Electric Lighting.—Proposals for lighting Mobile, Ala., with electricity for five years from November 1 next will be opened June 1. This is a postponement from date of May 15. For specifications address Harry T. Inge, chairman committee.

Electric-light Plant.—The Arlington Hotel, Augusta, Ga., is ready to correspond with manufacturers of electric-light plants, relative to contracting for same.

Engine.—See "Electric-light Engine."

Engine.—The R. D. Cole Manufacturing Co., Newnan, Ga., is in the market for a good second-hand Corliss engine, 16x36 inches or 14x42 inches; give name of maker, time of service and price.

Engine.—The White-Hall Co., Dillwyn, Va., wants to buy a 20 or 25-horse-power automatic engine, second-hand; must be in first-class condition and cheap for cash.

Fire-department Equipment.—The city of West Point, Miss., will probably soon want to buy hose for fire department. Address the mayor.

Flour and Meal Mills.—R. Turnbull, Lawrenceville, Va., wants to correspond with builders complete of flour mills, with a view of obtaining estimates on plants.

Gasoline Engine.—J. F. Prieto, Memphis, Tenn., is in the market for a small second-hand gasoline engine for river use.

Hardware Manufacturers.—A. M. Tyler, Box 904, Richmond, Va., wants to contract for the manufacture of sash fasteners; man-

ufacturers engaged in contract work are invited to respond.

Wire-rope Transmission Plant.—The Columbia Milling Co., Columbia, Va., wants a wire-rope transmission plant to give twenty-five horse-power; distance 500 feet or more. Specifications can be had by writing.

Woodworking Machinery.—The Collins Co., Pennsboro, W. Va., is in the market for a

good new or second-hand flooring machine, leather belting, etc.

Woodworking Machinery.—Godwin & McCormick, Eufaula, Ala., will be in the market for machinery for sawing and splitting wood, boiler and engine.

Woodworking Machinery.—The White-Hall Co., Dillwyn, Va., wants to buy one or two second-hand rip-saw tables, and an automatic grinder for grinding planer-bits.

#### TRADE NOTES.

A New Firm.—Bowles & Warwick is a new firm of Richmond, Va., located at 1425 E. Main street. They conduct a general machinery and supply business.

Removal.—The New York office of the New York & New Jersey Fire Proofing Co., has been removed to the Presbyterian Building, 156 Fifth avenue, in that city.

Galvanizing Plant.—The Richmond Cedar Works, manufacturers of woodenware and washing machines, Richmond, Va., are now operating their own galvanizing plant.

Skylight Contract.—Contract for putting in a fine dome skylight at the Boston City Hospital over a new surgical theatre operating-room has been awarded to E. Van Noorden & Co., of Boston. When finished the room will be one of the finest and best-lighted for its purpose in the world.

Oil-mill Contract.—The Cardwell Machine Co., Richmond, Va., whose success in building cottonseed-oil mills has gained an enviable reputation for the company, has been awarded contract to build the new mill at Wortham, Texas. By such an arrangement the town will secure an up-to-date mill.

Oil-mill Improvements.—New features embodied in the products of the Meridian Machine Shops, Meridian, Miss., are attracting increased attention. The cottonseed-oil mill machinery and hay presses of this concern have reached a high state of perfection, and the sales are rapidly increasing on this account.

Oil-well Specialties.—The Parkersburg Rig & Reel Co., of Parkersburg, W. Va., is a new concern, organized for the purpose of manufacturing oil-well specialties. It is building new shops, and just placed an order with the Davis & Egan Machine Tool Co., of Cincinnati, O., for the machine-tool equipment of its plant.

Soapmakers' Machinery.—H. Wm. Dopp & Son report that they are selling considerable soapmakers' and butchers' machinery in the South, with promising indications of far greater sales. Orders recently booked include a number of contracts for export. This firm is located at Buffalo, N. Y., and is a leader in this class of machinery.

Good Contract.—The Purcell Cottonseed-oil Mills, Purcell, I. T., has awarded contract for the construction of a complete 60-ton mill to the Buckeye Iron and Brass Works, Dayton, O. This mill is to be modeled after the one built last year by the same concern at Cisco, Texas, and which attracted so much attention by reason of its completeness.

Dowdell Foundry Rebuilt.—The extensive plant of the Dowdell Foundry, Ellwood City, Pa., manufacturers of porcelain-lined bathtubs, which was burned several months ago, is now being rebuilt. Work is being pushed in every direction, and it is expected to be ready to start up by the 1st of July with new equipment and largely-increased facilities.

Success Under Difficulties.—The millwrights of Sprout, Waldron & Co., of Muncy, Pa., recently installed a 50-barrel wheat mill for the Butler Grist Mill Co., of New Hope, Ala., under great difficulties. They report that they were obliged to go to and from the mill on muleback during the whole time they were placing the machinery, the stream on which the mill is situated having overflowed its banks, which was caused by the heavy rains at that time.

Flour-mill Machinery.—Recent contracts secured by the Wolf Co., Chambersburg, Pa., include the following: E. Dunn & Co., of Mifflintown, Pa., 40-barrel flour mill of the gyrator system, contract closed by representative Jno. T. Pensinger; W. L. Kreider, of Palmyra, Pa., a complete new 150-barrel flour mill of the gyrator system, also a complete feed and cornmeal plant and grain elevator of 10,000 bushels capacity; Kready & Son, of Orrtanna, Pa., remodeling mill to the gyrator system and increasing the capacity to thirty-five barrels; through W. H. Wakeford, representative, contract with W.

H. Streemel, of New Windsor, Md., for remodeling his 40-barrel mill to the gyrator system; M. Lichtenstetter, 980 First avenue, New York, necessary machinery for a 400-barrel flour blending and aerating outfit, order taken by M. N. Hartz; Twin City Mills, of Bristol, Tenn., contract with W. H. Wakeford, representative of the Wolf Co., for remodeling their 150-barrel flour mill to the gyrator system; P. M. Landis, of Centre Valley, Pa., for remodeling 40-barrel flour mill to the gyrator system, contract closed by J. S. Stout.

New Plant.—The Pittsburg Screw & Bolt Co. has started up an extensive plant at Liberty avenue and Twenty-fifth street, Pittsburg, Pa., for the manufacture of milled set-screws, cap-screws, stud-bolts, bicycle parts, as well as all special articles made on screw machines. This company turns out a line of machine bolts made to United States standard gages, fitted with cold-pressed, chamfered and trimmed nuts. The plant is equipped with the most improved modern machinery for fine work. A competent force of skilled workmen, having large experience in this particular line of work in Eastern factories, is employed.

Engines for Electric Service.—The Ball Engine Co., Erie, Pa., reports the following recent shipments of engines for electric purposes: Vulcan Coal Co., Treveskyn, Pa., 225 horse-power, direct connected to generator; Queen City Electric Light & Power Co., Clarksville, Tenn., 125-horse-power engine; Langhorne Electric Light & Power Co., Langhorne, Pa. (third order), 200-horse-power engine; Maxwell House, Nashville, Tenn. (third order), 125-horse-power engine, direct connected to dynamo; Rockville Water Works, Rockville, Md., 80-horse-power engine; Wilmington Gas Light Co., Wilmington, N. C. (third order), 300-horse-power cross compound engine; Pennsylvania Tube Works, Pittsburg, Pa., 60-horse-power engine; Seaboard Air Line, Portsmouth, Va., 70-horse-power engine, direct connected to dynamo; Apollo Iron & Steel Works, Apollo, Pa. (fourth order), 150-horse-power vertical cross compound, direct-connected, alternating machine; Kirk's Soap Factory, Chicago, Ill., 50-horse-power engine, direct connected to dynamo; Lexington Hotel, Richmond, Va., 40 horse-power; Congo Mining Co., Congo, O., 175 horse-power; Wainwright Brewing Co., Pittsburg, Pa., 80 horse-power; Fox Pressed Steel Co., Pittsburg, Pa., 100 horse-power; F. O. Norton Cement Co., Binnewater, N. Y., 60 horse-power; Lakewood Hotel & Land Co., Lakewood, N. Y., 165-horse-power tandem compound engine.

Entertained the Foundrymen.—The executive committee of the American Foundrymen's Association credit the success of its convention last week to the following-named, who contributed to the entertainment fund: American Radiator Co., American Blower Co., Art Stove Co., Bulk & Sherwood Manufacturing Co., Dry Dock Engine Works, Detroit Stove Works, Detroit Steel & Spring Co., Frontier Iron Works, Fulton Iron and Engine Works, Griffin Wheel Co., A. Harvey's Sons Manufacturing Co., Samuel F. Hodge & Co., Jenks & Muir Manufacturing Co., Leland & Faulconer Manufacturing Co., Michigan Malleable Iron Co., Michigan Peninsular Car Co., Murphy Iron Works, Russell Wheel & Foundry Co., Roe-Stephens Manufacturing Co., J. T. Wing & Co., Detroit Emery Wheel Co., Geo. W. Cope, F. A. Goodrich & Co., C. A. Strelinger & Co., A. A. Parker & Bro., F. B. Stevens, Carnegie Steel Co., Superior Charcoal Iron Co., Co-operative Foundry Co., R. L. Ginsburg & Sons, H. D. Edwards & Co., Caylord Iron Co., Buhl Sons Co., Byram & Co., C. C. Wormer Machinery Co., Detroit, Belle Isle & Windsor Ferry Co., all of Detroit, Mich.; American Glutrose Works, Philadelphia, Pa.; Wilbraham-Baker Blower Co., Philadelphia, Pa.; S. Obermayer Co., Cincinnati, O.; Wm. Sellers & Co., Philadelphia, Pa.; Barnum-Richardson Co., Lime Rock, Conn.; Walkerville Malleable Iron Co., Walkerville, Ont.; E. M. Ayers, Zanesville, O.; Ohio Iron & Steel Co., Lowellville, O.; Illinois Steel Co., Chicago, Ill.; Gould & Eberhardt, Newark, N. J.; Brown-Bonnell Iron Co., Youngstown, O.; Wm. R. Thomas, New York, N. Y.; N. S. Bartlett & Co., Boston, Mass.; J. D. Smith Foundry Supply Co., Cincinnati, O.; Buchel Machine Works, New Orleans, La.; Domhoff & Joyce Iron Co., Cincinnati, O.; Hugh W. Adams & Co., New York, N. Y.; Colbert Iron Co., Sheffield, Ala.; Whitehead Bros. Co., New York, N. Y.; Ingersoll-Sergeant Drill Co., New York, N. Y.; Crozer Iron Co., Upland, Pa.; Matthew Addy & Co., Cincinnati, O.; Cleveland Facing Mill Co., Cleveland, O.; Ward & Nash, Chicago, Ill.; Cobelle Pattern Co., Cleveland, O.; H. E. Pridmore, Chicago, Ill.; J. W. Paxson Co., Philadelphia, Pa.; Davis

Coal & Coke Co., Piedmont, W. Va.; Springfield Facing Mills, Springfield, Mass.; Aeromotor Co., Chicago, Ill.; Dayton Coal & Iron Co., Cincinnati, O.; Washington Coal & Coke Co., Pittsburg, Pa.; T. P. Kelly & Co., New York, N. Y.; Rogers, Brown & Warner, Philadelphia, Pa.; Whiting Foundry Equipment Co., Chicago, Ill.; J. S. McCormick Co., Pittsburg, Pa.; Tabor Manufacturing Co., Elizabeth, N. J.; McCullough-Dalzell Co., Pittsburg, Pa.; Pedrick & Ayer Co., Philadelphia, Pa.; R. B. Seidel, Philadelphia, Pa.; Brown & Sharpe Manufacturing Co., Providence, R. I.; M. A. Hanna & Co., Cleveland, O.; Rogers, Brown & Co., Cincinnati, O.; Spearman Iron Co., Sharpsville, Pa.; Syracuse Chilled Plow Co., Syracuse, N. Y.; Pickands, Mather & Co., Cleveland, O.; Pickands, Brown & Co., Chicago, Ill.; Clinton Iron & Steel Co., New York, N. Y.; Perkins & Co., Sharpsville, Pa.; Stewart Iron Co., Cleveland, O.

### TRADE LITERATURE.

The Ideal Gas Engine.—The essentials for such an engine are amplified in a catalogue issued by the J. W. Ruger Manufacturing Co., Buffalo, N. Y. This pamphlet describes the "Fenner" made by the company, and shows its adaptability to various kinds of work.

Yachts and Marine Works.—A circular has been issued by the Marine Iron Works, Clybourn & Southport avenues, Chicago, Ill., calling attention to a number of yachts, launches, marine engines and marine boilers which are offered for sale. These are either completed or in process of construction at the works.

The St. Louis Corliss.—An experience of over forty years in the manufacture of engines and power machinery of all kinds is embodied in the latest example of the St. Louis Corliss engine. Built by the St. Louis Iron & Machine Works, St. Louis, Mo., this engine is considered a high standard of perfection. Interesting details regarding it are given in a new catalogue.

A Fine Wheel.—A combination of untiring energy, foresight and conservatism have placed the Eagle Bicycle Manufacturing Co., Torrington, Conn., among the leaders, and its prestige is rapidly extending. Makers of the "Eagle" bicycle, this concern has good reason to be proud of its product. The many good points of this wheel are explained in the company's new catalogue.

Fuel Saver.—Damper regulators are today recognized as necessary adjuncts to all steam plants. Steam users who have thoroughly studied the various fuel-saving appliances now on the market, are the first to recognize the value of a well-proportioned and carefully-made damper regulator. A circular issued by the Mason Regulator Co., Boston, Mass., describes the Mason hydraulic damper regulator, for which remarkable results are claimed.

Water Pumped by Compressed Air.—A pamphlet describing the Pohle air-lift system for pumping water from artesian wells by means of compressed air, without the use of any moving parts, has been issued by the Ingersoll-Sergeant Drill Co., Havemeyer Building, 26 Courtlandt street, New York city. It presents the various advantages and economy of this system and gives much data that will be helpful to those having such service to be performed.

The Besly Catalogue.—This publication is a fine example of both the printers' art and the aggressiveness which has won such a wide circle of patrons for Charles H. Besly & Co., 10 and 12 North Canal street, Chicago, Ill. It is a compendium of fine tools, manufacturers' and machinists' hardware, seamless tubes, platers', polishers' and grinders' supplies, as well as supplies for railroad shops, founders, moiders, electrical, iron and steel manufacturers, and many others. The arrangement of this work is unique; half-tones predominate throughout, full descriptions have been embodied as far as possible, and the cuts and subject-matter so condensed that Besly & Co. are able to present in the scope of their book more matter than is ordinarily shown in a book of 1000 pages arranged as usual. Manufacturers' lists are used exclusively. Special attention is called to the index, or finding list, which contains over 1700 subheads. The firm of Charles H. Besly & Co. was established in 1876. Their endeavor has been to be ever in advance of the demands of the trade, and by courteous treatment and honest dealings merit patronage.

### Important Removal of a Michigan Factory to Kentucky.

The Manufacturers' Record has been informed of the completion of negotiations that ensure the removal to Louisville, Ky., of a large manufacturing plant now located at Grand Haven, Mich. The plant in question is that of the American Mirror & Glass Beveling Co., of which Mr. R. K. Stallings is president; George Nuber, treasurer, and Jas. W. Orr, Jr., secretary.

Mr. Stallings writes that a site 500x225 feet in dimension has been purchased, and that about June 1 will be commenced the erection of the necessary buildings. The plant, when completed, will have cost about \$50,000, and the company will manufacture mirrors and handle glass in all its branches. About 150 men will be employed in the works.

### Southern Hardware Sellers.

The annual convention of the Southern Hardware Jobbers' Association, held this year at Savannah, Ga., called together about 100 prominent firms in the South, as well as a number of manufacturers of hardware from the North. During the session, which lasted two days, papers were read on subjects of especial interest to the hardware people, and a discussion of mutual benefit was indulged in.

The association has elected the following officers for the ensuing year: President, G. W. Barnett, of Birmingham, Ala.; first vice-president, J. J. Mandelbaum, of Little Rock, Ark.; second vice-president, John Donnan, of Richmond, Va.; secretary and treasurer, C. R. Carter, of Atlanta. The executive committee consists of W. A. Parker, Atlanta; W. E. Gibbons, Knoxville, Tenn.; A. B. Palmer, Savannah, and J. D. Moore, Birmingham, Ala.

### To Cultivate Virginia Water-cresses.

The Virginia Cress Co., of Roanoke, Va., has been chartered for the purpose of cultivating and selling water-cresses.

Mr. Jos. C. Moomaw is president, and C. A. Moomaw, secretary-treasurer. Mr. J. C. Moomaw began to raise water-cress in Moomaw lake, near Roanoke, a year or more ago, and found the demand for the product so great from New York, Boston and Philadelphia that he has leased other lakes in Roanoke, Montgomery and Botetourt counties and planted them in cress. Virginia cress, they claim, far outsells all others in the market, and, notwithstanding the lakes are yielding well, the supply does not come up to the demand. It is said the clear spring water of the mountains imparts a superior flavor and crispness to the Virginia cresses.

The special feature of Frank Leslie's Popular Magazine for June is an article by Charles Thomas Logan, "Baltimore in her Centennial Year." In pleasing style are sketched the various phases of the city's social, industrial, commercial, educational, artistic and literary life, with profuse half-tone illustrations of typical dwellings, churches and public buildings, including a comprehensive bird's-eye view surrounded by individual pictures. The article is in line with the work which Frank Leslie's is doing of special local interest, adding steadily to its popularity.

One thousand box-cars, stenciled "B. & O.—Fairport Line," have been built for service between Fairport and points east, and an order has been issued that these cars shall be used exclusively in this line and in connection with the new Great Northern-B. & O. trans-continental traffic agreement.

### FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

No advertisements but those of a financial character will be accepted for the following page.

#### An Important Bond Issue.

The 7 per cent. bonds of the Savannah, Florida & Western division of the Plant system, it is announced, will be refunded by the issue of bonds reserved for this purpose under the mortgage securing the 7 per cent. bonds. The interest upon the refunding bonds will be 5 per cent. The New York Security & Trust Co. and Charles T. Wing & Co., of New York, have arranged the transfer, and will give bondholders the option of cash in payment of the 7 per cent. bonds or of exchanging their holdings for the new issue. The latter is a portion of a total issue of \$6,500,000, and is first lien on 487 miles of the Savannah, Florida & Western Railroad. The 7 per cent. bonds are due on July 1, 1897, and amount to \$1,780,000.

#### Atlantic Coast Line Certificates.

The announcement is made that the stockholders of the Atlantic Coast Line Co. have authorized an issue of \$6,000,000 in certificates of indebtedness. The issue is in accordance with a plan which will reduce the present capital stock of the company from \$10,000,000 to \$5,000,000. In place of the stock retired \$5,000,000 of the certificates of indebtedness will be substituted. The certificates are exchanged at par for the capital stock, and on them interest at the rate of 5 per cent. yearly will be paid. These interest payments will take precedence over dividends on the stock. It is understood that the object of the plan is to convert half of the company's capital stock into more desirable securities for investment purposes.

#### New Corporations.

The Citizens' Building & Loan Association has been formed at Columbia, S. C., by J. S. Muller, W. D. Milton and others, with \$200,000 capital stock.

The Chippewa Building & Loan Association, No. 2, of St. Louis, has been organized, with \$300,000 capital, by J. H. Peters, Valentine Parth and others.

A branch of the American Building & Loan Association has been formed at Arcadia, La., with Wm. Myer, president; W. P. Head, vice-president; S. W. Smith, Jr., secretary and treasurer.

The company which proposes to open a bank at Upper Marlboro, Md., has selected a site for a building and proposes to begin business with \$25,000 capital. Clarence Hodson, of the United States Trust Co., of Baltimore, is to be president.

It is reported that the Martin Lumber Co., G. V. Brecht and others of St. Louis are interested in a plan recently referred to in the Manufacturers' Record, to open a bank in the northern section of St. Louis to succeed the Mullanphy Bank. It is stated that the building occupied by the latter will be secured. The capital stock of the new corporation will probably be \$300,000.

#### New Securities.

It is reported that Highland Park, Ky., will issue \$5000 for school bonds. The mayor may be addressed.

The proposed bond sale at Moultrie, Ga., has been postponed until July 1. The amount of the issue is \$5000.

The county commissioners at Beau-

mont, Texas, it is stated, have determined to issue \$5000 in 5 per cent. courthouse bonds.

It is reported that the people of Bay St. Louis, Miss., will vote on an issue of \$40,000 in 6 per cent. bonds for improvements.

The town of Chester, S. C., it is reported, has decided to issue the amount of \$50,000 in bonds for water and electric-light plants.

G. W. Williams, of Charleston, S. C., has purchased the issue of \$30,000 in 6 per cent. bonds made by the city of Laurens, S. C.

Messrs. Dietz, Denison & Pryor, of Cleveland, O., it is stated, have purchased the issue of \$75,000 in 6 per cent. bonds of Calhoun county, Ala., at 102.75.

It is reported that the town of Martin, Tenn., has determined to issue the proposed amount of \$25,000 in 6 per cent. bonds for water-works purposes. The city treasurer may be addressed.

Messrs. J. P. Andre, Mott & Co., of Norfolk, Va., have purchased the issue of \$25,000 in 5 per cent. refunding bonds of Norfolk county, Virginia, at about 103½. The sale attracted bidders from Cleveland, New York and a number of outside cities.

Messrs. Dietz, Denison & Pryor, of Cleveland, O., and Farson, Leach & Co., of Chicago, have purchased the issue of \$100,000 in road bonds made by the road commissioners at Tuscaloosa, Ala. The bonds bear 5 per cent. interest. The sale was made at par and accrued interest.

#### Dividends and Interest.

The Columbus Investment Co., of Columbus, Ga., has declared a dividend of 6 per cent.

The First National Bank of Baltimore has declared a semi-annual dividend of 2½ per cent.

The Second National Bank of Baltimore has declared a semi-annual dividend of 3½ per cent.

The Third District Building Association of New Orleans has declared a divi-

The City Savings Bank of Baltimore has declared its yearly dividend to stockholders of 4 per cent.

#### Financial Notes.

The annual convention of the bankers of Texas was held this year at Belton, Texas. It was attended by representatives of financial institutions of the principal cities of the State. The features of the meeting included papers on various subjects pertaining to banking read by N. B. Lloyd, of Fort Worth; M. Murphy, of Mexia, and others. A number of new banks were admitted to the association.

Messrs. N. W. Harris & Co., of New York and Chicago, who are well known as heavy investors in Southern securities, have been compelled to obtain larger offices in New York for the transaction of their business, and have removed from No. 15 Wall street to No. 30 Nassau street. Messrs. Harris & Co. make a feature of municipal bonds of unquestioned reliability, and carry on a large business with banks, trustees and representatives of States who desire first-class investment securities.

The *Southern States* magazine is read by thousands of farmers, fruit-growers, stock-raisers and business men in all the North, West and Northwest, who are looking to the South as a future home and are trying to inform themselves as to the relative advantages of different parts of the South. If you have farm, garden or orchard property for sale the *Southern States* will put you into communication with buyers. Send for sample copy and rates. Manufacturers' Record Publishing Co., Baltimore, Md.; Wm. H. Edmonds, editor and manager.

#### TABLE OF CONTENTS.

EDITORIAL:	Page.
In the South's Interest.....	289
Southern Protective Policy.....	289
The World's Commerce.....	289
Unworthy of Criticism.....	289
To Solve a National Problem.....	289
 Will Study the South.....	
An Expert in Statistics.....	290
Types of Louisville.....	290
Industrial News from Birmingham.....	290
"Unfair and Calculated to Work Injustice.".....	291
 RAILROAD NEWS:	
\$30,000,000 in Bonds Flated.....	291
Development of Pensacola.....	292
Chesapeake & Ohio Improvements.....	292
Southern Railroads Again Lead.....	292
Southern Railway's Good Example.....	292
Important Tennessee Project.....	292
From Augusta to Newberry.....	292
The Proposed Atlanta Station.....	292
Baltimore & Ohio's Western Alliance.....	292
Want Lower Freight Rates.....	292
An Important Short Line.....	292
Official Appointments.....	292
The Arkansas Central.....	293
Action of Railway Commissioners.....	293
A Report Denied.....	293
Railroad Notes.....	293
American Tobacco Co. Meeting.....	293
 PHOSPHATES:	
Phosphate Markets.....	293
Phosphate and Fertilizer Notes.....	293
Iron Markets.....	293
 LUMBER:	
Lumber Market Reviews:	
Baltimore.....	294
Norfolk.....	294
Charleston.....	294
Savannah.....	294
Mobile.....	294
Beaumont.....	295
St. Louis.....	295
Lumber Notes.....	295
 MECHANICAL:	
Deterioration of Boilers by Incrustations.....	296
Coal and Ashes Handling Machinery (Ill.).....	296
Largest Compressor Engine in Canada (Ill.).....	296
Improved Self-Feeding Board Trimmer (Ill.).....	297
New Buzz Planer and Jointer (Ill.).....	297
New Ironclad Motor (Ill.).....	297
 TEXTILES:	
Changes in a Great Cotton Firm.....	298
To Curtail Yarn Production.....	298
Textile Notes.....	298
Good Hotels Pay in the South.....	298
 COTTONSEED OIL:	
The Market for Cottonseed Products.....	298
Cottonseed-Oil Notes.....	298
Coal Output of the Jellico District.....	298
 CONSTRUCTION DEPARTMENT:	
New Enterprises.....	299
Building Notes.....	300
Railroad Construction.....	300
Machinery Wanted.....	301
Trade Notes.....	301
Trade Literature.....	302
Important Removal of a Michigan Factory to Kentucky.....	302
Southern Hardware Sellers.....	302
To Cultivate Virginia Water-cresses.....	302
 FINANCIAL NEWS:	
An Important Bond Issue.....	302
Atlantic Coast Line Certificates.....	302
New Corporations.....	302
New Securities.....	302
Dividends and Interest.....	303
Financial Notes.....	303

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Geo. C. Schuermann, of Baltimore, Md.

L. D. Heart, Cashier First Nat'l B'dk Durham, N. C.

H. B. Tilden, of Baltimore, Md.

The stock of this company has been listed on the New York Mining and Industrial Exchange.

The office of the company is at 849 Equitable Building, Baltimore, Md.

The treasury stock now being offered affords an investment opportunity that is well worth looking into.

The Big Union Mines, the property of this company, lie on the same contact vein with the most noted of the great Leadville mines. One of these the "Little Johnny" is the greatest gold mine in Colorado and perhaps in the world. Its present output is about \$300,000 per month. It paid last year \$1,600,000 in dividends and is now paying monthly dividends of \$100,000 to \$200,000.

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Joshua Levering, Alexander Brown.  
Frank Brown, Douglas H. Gordon.<br

# Alphabetical Index of Advertisers.

For "Classified Index" see pages 3, 5 and 7.

<b>A</b>	
Abbe, M. F.....	18
Adams, George S.....	26
Adams, William H.....	6
Ahrens & Ott Mfg. Co.....	17
Ailton & Wood.....	21
Akron Belting Co.....	10
Alabama Bridge & Boiler Co.....	9
Alber & Byrne.....	6
Albro, E. D., Co.....	24
Alexander Bros.....	11
Allen Anti-Rust Mfg. Co.....	27
Aising, J. R., Co.....	18
American Bonding & Trust Co.....	303
American Cotton Oil Co.....	2
American Engine Co.....	14
American Food & Oil Co.....	23
American Ship Windlass Co.....	10
American Supply Co.....	31
Andersen Jan & Co., J.....	*
Anderson Water, Light & Power Co.....	22
Andrews, A. H., Co.....	†
Andrews, Perry.....	35
Apollo Iron & Steel Co.....	20
Armitage-Herschell Co.....	*
Armitage Mfg. Co.....	27
Asbrand, C. W.....	27
Asheville Woodworking Co.....	23
Ashtabula Tool Co.....	32
Asphalt Ready Roofing Co.....	27
Atkins, E. C., & Co.....	28
Atlanta Terra Cotta Co.....	8
Austin White Lime Co.....	6
Automatic Circuit Breaker Co.....	20
<b>B</b>	
Babcock & Wilcox Co.....	15
Babcock, H. H., Co.....	21
Baeder, Adamson & Co.....	19
Bailey-Lebby Co.....	18
Bailey, John T., & Co.....	20
Bally Mfg. Co.....	39
Baird, U., Machinery Co.....	12
Baldwin Locomotive Works.....	13
Ball Engine Co.....	16
Baltimore, Chesapeake & Richmond Steamboat Co.....	37
Baltimore Engraving Co.....	33
Baltimore Storage & Light. Co.....	37
Barber Asphalt Paving Co.....	21
Barnes Mfg. Co.....	34
Barnes, W. F. & John, Co.....	8
Barnett, G. & H., Co.....	40
Bates's, James, Sons.....	21
Battle Creek Steam Pump Co.....	34
Bay Line.....	37
Beach, H. L.....	29
Beckley, A. J., & Co.....	21
Benjamin, O. P., Mfg. Co.....	35
Berryman, James.....	16
Bertsch & Co.....	8
Besly, Chas. H., & Co.....	40
Bethlehem Iron Co.....	39
Big Four Route.....	37
Big Union Mining Co.....	303
Baltimore Estate.....	23
Bing, J. Howard.....	17
Bird, Wm. M., & Co.....	6
Birmingham Boiler Works.....	9
Black Mfg. Co.....	39
Bliss Co., E. W.....	26
Block-Polak Iron Co.....	24
Boomer & Boschert Press Co.....	21
Boss Knitting Machine Works.....	†
Boston Belting Co.....	11
Bowes, F. K.....	23
Boyd, Jones & Co.....	10
Bradford Mill Co.....	12
Bradley Pulverizer Co.....	18
Bradstreet Company.....	36
Branson Machine Co.....	30
Bridgeport Chain Co.....	10
Brooks, T. H., & Co.....	27
Broomell, Schmidt & Co.....	16
Brown, A. & F.....	25
Brown Cotton Gin Co.....	30
Brown Hoisting & Con. Mch. Co.....	4
Bruce, O. H.....	23
Buckeye Iron and Brass Works.....	30
Buffalo Forge Co.....	40
Bureau of Freight and Transportation, Charleston, S. C.....	20
Burgess, Chas. S.....	6
Burnham Bros.....	35
Burt Labelling Machine Co.....	24
Bushnell, G. H., Press Co.....	30
Byers, Jno. F., Machine Co.....	4
<b>C</b>	
Cahall Sales Department.....	20
Caldwell, H. W., & Son Co.....	4
Cameron, A. S., Steam Pump Wks.....	34
Cameron & Barkley Co.....	18
Canton Steel Roofing Co.....	27
Capital Traction Co.....	22
Card Electric Co.....	35
Cardwell Machine Co.....	30
Carlins, Thomas, Sons.....	23
Carnell, George.....	24
Caroline Iron Works.....	19
Carver Cotton Gin Co.....	30
Castner & Curran.....	33
C & C Electric Co.....	38
C. & B. Line.....	37
Chambers Bros. Co.....	23
Chapman, Wm. A., & Co.....	6
Chapman Valve Mfg. Co.....	33
Charlotte Machine Co.....	31
Chattanooga Fdy. & Pipe Works.....	26
Chesapeake Belting Co.....	11
Chester Steel Castings Co.....	13
Chicago Belting Co.....	11
Chrome Steel Works.....	13
Cincinnati Corrugating Co.....	26
Cincinnati Elevator Works.....	21
Cin., Hamilton & Dayton R. R.....	37
Cincinnati Screw & Tap Co.....	9
Clark, W. J., Co.....	32
Clark, Jeremiah.....	30
Clendenin Bros.....	40
Climax Mfg. Co.....	13
Cloverbrook Steam Boiler Co.....	15
Coburn Trolley Track Mfg. Co.....	9
Cohoes Iron Fdy. & Mch. Co.....	31
Cole, Wm. H., & Sons.....	36
Commercial Electric Co.....	39
Commercial Wood & Cement Co.....	6
Consolidated Engineering Co.....	6
Contractors' Plant Mfg. Co., Ltd.....	4
Cordesman Machine Co.....	29
Cordesman, Meyer & Co.....	29
Cortright Metal Roofing Co.....	27
Cotton States Belting & Supply Co.....	11
Covert Mfg. Co.....	33
Cox & Sons Co.....	12
Crompton Loom Works.....	*
Cronk Hanger Co.....	†
Crosby Steam Gage & Valve Co.....	16
Cruickshank, D. B.....	23
Culver Mfg. Co.....	9
Currie, Andrew.....	21
Curtis & Marble Machine Co.....	31
Cutler Mfg. Co.....	21
Cypress Lumber Co.....	*
<b>D</b>	
Dake Engine Co.....	4
Dallett & Co.....	23
Damascus Bronze Co.....	13
Davis & Egan Mch. Tool Co.....	23
Davis Coal & Coke Co.....	33
Davis-Farrar Co.....	34
Davis Foundry and Mch. Works.....	†
Davis, Kelly & Co.....	23
Dean Bros. Steam Pump Works.....	34
Defiance Machine Works.....	28
De Kalb, Courtenay.....	6
De Loach Mill Mfg. Co.....	29
Deming Co.....	34
Dempwolf, C. H., & Co.....	18
Detroit & Cleveland Stm. Nav. Co.....	37
Detroit Mill Supply Co.....	12
Draper Co.....	20
Draper Machine Tool Co.....	12
Dufur & Co.....	26
Dunning, W. D.....	21
<b>E</b>	
Easton & Burnham Machine Co.....	31
Eccles, S. Jr.....	24
Eco Magneto Clock Co.....	21
Eisenbrandt Cycle Co.....	36
Emerson Co.....	24
Empire Glass & Decoration Co.....	25
Empire Paint & Roofing Co.....	27
English Supply & Engine Co.....	15
Epping-Carpenter Co.....	30
Etting, Edward J.....	23
Brooks, T. H., & Co.....	27
Broomell, Schmidt & Co.....	16
Brown, A. & F.....	25
Brown Cotton Gin Co.....	30
Brown Hoisting & Con. Mch. Co.....	4
Bruce, O. H.....	23
Buckeye Iron and Brass Works.....	30
Buffalo Forge Co.....	40
Bureau of Freight and Transportation, Charleston, S. C.....	20
Burgess, Chas. S.....	6
Burnham Bros.....	35
Burt Labelling Machine Co.....	24
Bushnell, G. H., Press Co.....	30
Byers, Jno. F., Machine Co.....	4
<b>F</b>	
Falls Rivet & Machine Co.....	25
Farquhar, A. B., Co., Limited.....	8
Fay, J. A., & Egan Co.....	28
Fay Manilla Roofing Co.....	26
Felt & Tarrant Mfg. Co.....	21
Fernandina Oil & Creosote Works.....	24
Fidelity & Deposit Co. of Md.....	21
Finfield Tool Co.....	12
Finnell, Jos. C.....	22
Fitz-Hugh & Co.....	24
Floyd, C. H. B.....	22
Flickwir, David W.....	22
F. M. S.....	22
Fogg, A.....	24
Foos Gas Engine Co.....	16
Foos Mfg. Co.....	18
Forbes, W. D., & Co.....	14
Forsaith, S. C., Machine Co.....	12
Fort Wayne Electric Corporation.....	39
Fossick Co., T. L.....	6
Freese, E. M., & Co.....	*
French, Saml. H., & Co.....	26
Frick Co.....	14
Froehling, Dr. Henry.....	6
Fuel Economizer Co.....	17
Fulton, John.....	6
Fulton Steam Boiler Wks. & Fdry.....	15
Furbush, M. A., & Son, Mch. Co.....	30
<b>G</b>	
Gallert, S.....	23
Gandy Belting Co.....	11
Garber, D. A.....	6
Garrett, C. S., & Son.....	27
Gas Engine & Power Co.....	9
Gates Iron Works.....	19
General Electric Co.....	31, 39
General Fire Extinguisher Co.....	4
Gilbert, C. M., & Co.....	6
Glaskin, George F., & Co.....	6
Glen Cove Machine Co., Ltd.....	29
Globe Steam Heater Co.....	9
Golden's Foundry & Machine Co.....	25
More, Jones & Co.....	13
Middendorf, Oliver & Co.....	303
Milburn, Frank P.....	6
Miller Gas Engine Co.....	16
Mergenthaler, Ott., & Co.....	8
Meridian Machine Shops.....	32
Meyer, Dr. Otto.....	6
Merchants & Miners' Transp. Co.....	37
Meres, C. R., Heater Mfg. Co.....	16
Mergenthaler, Ott., & Co.....	8
Meridian Machine Shops.....	32
Meyer, Dr. Otto.....	6
Sabell Bros.....	8
Safe Deposit & Trust Co.....	303
Saunders, John.....	*
Saunders, D., Sons.....	12
Schieler, Chas. A., & Co.....	10
Scott, Nat. G.....	6
Seabury, Charles L., & Co.....	9
Shaw, Willis.....	23
Shawhan-Tresher Electric Co.....	39
Sherwood Mfg. Co.....	8
Shultz Belting Co.....	11
Siedler, C., President.....	21
Simpson, J. S. & G. F.....	18
Sinclair, S. H., Co.....	10
Situations Wanted.....	36
Skinner Chuck Co.....	8
Smethurst & Allen.....	39
Smith-Courteau Co.....	9
Smith, S. Morgan.....	35
Smith & Kirby Co.....	23
Snediker & Carr.....	40
Snow Steam Pump Works.....	34
Southeastern Lime & Cement Co.....	6
Southern Foundry & Mch. Wks.....	23
Southern Iron & Equipment Co.....	23
Southern Iron Works.....	12
Southern Log Cart & Supply Co.....	24
Southern Railway Co.....	37
Southern Real Estate Exchange.....	23
Southern Water Supply Co.....	35
Sparta Pulp Mills.....	22
Spear's, Aiden, Sons & Co.....	26
Sperry, Jones & Co.....	303
Springfield Gas Engine Co.....	16
Sprout, Waldron & Co.....	19
Standard Mill Supply Co.....	30
Standard Oil Co.....	27
Standard Paint Co.....	27
Standard Tool Co.....	40
Stanley Electric Mfg. Co.....	39
Starr, B. F., & Co.....	19
Stearns & Gray.....	39
Steel Rail Supply Co.....	24
Stender, Wm. L.....	17
Sterling Emery Wheel Mfg. Co.....	13
Stevens, H., Sons Co.....	40
Stewart, Jas. & Co.....	6
Stiles & Fladd Press Co.....	8
Stillwell-Bierce & Smith-Vale Co.....	32, 34
Stow Flexible Shaft Co. Ltd.....	9
Stow Mfg. Co.....	10
Struthers, Wells & Co.....	14
Stuebner, G. L.....	8
Sturtevant, B. F., Co.....	31
Sturtevant Mill Co.....	18
Sullivan Machinery Co.....	19
Sweet, B. W.....	23
<b>T</b>	
Thomson, W. H., & Co.....	27
Toomey, Frank.....	23
Tredegar Co.....	24
Trenton Iron Co.....	4
Trevor Mfg. Co.....	8
Trichel, J. C., Jr.....	21
Tudor Boiler Mfg. Co.....	14
<b>U</b>	
Union Drawn Steel Co.....	25
Union Electric Co.....	39
Union Iron Works Co.....	*
U. S. Fidelity & Guarantee Co. of Baltimore.....	3/3
U. S. Machine Co.....	29
U. S. Sanitary Co.....	*
<b>V</b>	
Valk & Murdoch Iron Works.....	15
Valley Iron Works.....	9
Vanduzen Co., The E. W.....	35
Van Duzen Gasoline Engine Co.....	16
Van Noorden, E., & Co.....	6